COUNTWAY LIBRARY
HC 6NOC

BIBLIOTHECA · BOSTONIENSIS · MEDICINAE
SERVAT · ET · DOCET
FVNDATA · MDCCCLXXV
EX DONO

Digitized by the Internet Archive
in 2015

https://archive.org/details/californiastatej1190medi

8090

California State Journal of Medicine.

Published Monthly by the
Medical Society of the State of California

Publication Committee:
Philip Mills Jones, M. D. George H. Evans, M. D.
Henry Gibbons, Jr. M. D. Dudley Tait, M. D.
Charles D. McGettigan, M. D.

Office of the Journal, - - - - 31 Post St. San Francisco

NOVEMBER, 1902.

BOSTON MED. LIBRARY JUN 22 1904

EDITORIAL NOTES.

PURPOSE OF THE STATE JOURNAL.

The California State Journal of Medicine will hereafter take the place of the Annual Volume of Transactions of the Medical Society of the State of California. The Journal will be sent free to every member of the State Society and will be issued monthly. All communications should be addressed to the "Editor of the Journal," 31 Post street, San Francisco. In addition to the official reports of the annual meetings of the State Society, and the papers and discussions of the scientific section, the Journal will publish a limited number ot original articles, reports of county societies and such other matter as may be of interest.

The advertising pages of the Journal will be limited in number and will be open only to advertising matter which complies with the strictly ethical standard that is so well understood by all, yet so frequently forgotten—when there is a financial reason to forget.

The Journal will not be responsible for the statements or ideas put forth in the original communications, scientific papers or discussions which it may print. It will not publish for any consideration matter of the "reading notice" sort, nor will it permit any "original article" infected with the bacillus of this disease to appear in its pages knowingly or wittingly.

The Journal will be the partisan of no one and nothing, save only and always an energetic partisan for honest, legitimate, ethical practice of the regular profession, for truth and right, and, first, last and all the time, for ORGANIZATION, and again ORGANIZATION, of the regular profession of California into a united body—the State Society.

In reluctantly taking up the task of starting the California State Journal of Medicine, at the request of the Board of Trustees of the State Society, the editor bespeaks the friendly aid and assistance of every member of the State Society and of every regular practitioner of California, who should be a member of the State Society, if he is not. The work at hand to be done is great; yet it can be easily done if the professional men of California will stand by their State, their State Society and their State Society's Journal. The "right hand of the continent," the best and the most richly endowed strip of country in these United States—God's country—should have a united medical profession and a big and powerful State Medical Society. It can have and it will have such a united profession and such a society, working for the right and for scientific truth, for honesty of purpose, and for the betterment of the practice of medicine, if each one will do his own little to help along the one much-desired end. Help a little; help a little more; and then help again.

MEMBERSHIP IN STATE SOCIETY.

The Medical Society of the State of California, at its meeting in 1901, decided to adopt the reorganization scheme suggested by the American Medical Association, and on motion a committee was appointed to formulate a new constitution and by-laws. At the meeting of 1902 the constitution and by-laws prepared by this committee were formally adopted; they were then printed, and a copy was sent by the secretary to each member of the State Society. Under the new plan of organization county medical societies that affiliate with the State Society become members of the State Society and the members of such county societies become members of the State Society *ipso facto*. The annual dues to the State Society are now paid by the county societies, and the amount for the present year has been fixed at one dollar for each member. The full amount, together with a correct list of the officers and members, and the delegates to the Legislative Branch of the State Society, must be sent by the secretary of the County Society to the secretary of the State Society at least one week before the date of the annual meeting.

The attention of the regular practitioners of the State is earnestly called to the following extracts from the new by-laws:

Article XIV, Section 1. "Each county medical society now existing, or which may hereafter be organized, that shall elect to become affiliated with the Medical Society of the State of California shall transmit to the secretary of the said State Society a copy of its by-laws and rules, with the names of officers and members, and as soon as the report is returned approved by the Judicial Council the society will thereafter be recognized as an affiliated society and authorized to elect delegates to the Legislative Branch of this society." (One delegate for every fifty of its members, and one for any additional fraction of that number; each society having less than fifty members shall be entitled to one delegate.)

Article XIII, Section 1. "It shall be the privilege and duty when practicable of members of the regular profession living in any county in this State to organize a county medical society to affiliate with the State Society, provided that public notice of the meeting for that purpose be given and that all regular physicians in good standing in the county be invited to join therein. Such society may elect officers and adopt by-laws that do not contravene those of the State Society. But one county medical society in each county of the State shall be recognized in affiliation with this society."

Article I, Section 3. "Any regular physician residing in a county in which there is no county medical society in affiliation with this society, may make application for membership to the Judicial Council. The council shall ascertain the qualifications and standing of the applicant, and report to the Legislative Branch at the next annual meeting. If such report be favorable, and adopted by a majority vote of the Legislative Branch, the applicant shall be declared a member of this society."

Careful consideration of these sections cannot be too strongly urged upon the physicians of the State. County societies now existing should immediately take up the matter of affiliation with the State Society, if not already affiliated, and see that such affiliation is secured in time to elect delegates and attend the next meeting of the State Society at Santa Barbara April 21, 1903. Every regular practitioner of the State should be a member of the State Society and of the American Medical Association. Before long membership in the State Society will carry with it membership in the American Medical Association.

In most cases the dues to the county society need not be increased in order to cover the assessment to the State Society, one dollar annually for each member. Most existing county societies have little or no need for the money derived from dues, aside from defraying minor incidental expenses of postage, etc., and the tax for membership in the State Society would not be a burden upon any county society treasury.

The Journal is sent free to every member of the State Society.

IMPORTANCE OF AFFILIATION.

When the Medical Society of the State of California adopted its new constitution and by-laws at its last meeting it was the intention that its portals should be so wide that no reputable physician in the State should be debarred from membership, or, indeed, should have any excuse for not becoming a member. That these laudatory objects are being realized by the application of county societies for affiliation, is therefore a source of great pleasure to the officers of the State Society. A few county societies have, however, as yet apparently taken no action in this matter, which is indeed surprising, for in all of them are active workers in the State body; men who are fully alive to the magnificent possibilities of a thorough organization of the medical profession throughout the United States, of which organization this action by our society is but a part. It is urged that every member of the State Society throughout the State make it his special affair to ascertain what steps his local society has taken toward affiliation. No county society has been overlooked in a cordial invitation to affiliate. On May 9th the following letter was sent to the secretary of every county society of whose existence the secretary of the State Society could learn:

"San Francisco, May 9, 1902.

"A copy of the new constitution and by-laws of the Medical Society of the State of California is herewith enclosed. You are respectfully urged to take such action as will regularly affiliate you with that body. Yours very truly,

"George H. Evans, Secretary."

This letter was sent to the secretaries of eighteen county societies. A number of counties have no county societies. The formation of such in sparsely settled counties, as, for instance, those in the extreme north of the State, can scarcely be looked for; but even here much good could be accomplished by some well-directed effort. A society could be formed by the physicians of Siskiyou, Trinity, Shasta and Tehama, for instance, possibly taking in Del Norte, Modoc and Lassen. It would not be practicable for such a society to meet frequently, because of the difficulties in the way of travel, but organization would enable the physicians in such a district to have proper representation in the State Society, thereby not only benefitting them personally, but, also, by increasing our representation in the House of Delegates of the American Medical Association. (See Art. 7, Sec. 1, by-laws State Society.)

There exist, however, populous counties where local societies should exist, and would exist were it not for conditions of apathy that are truly deplorable; where personal animosities are carefully nurtured; where petty professional jealousies are fostered. The writer on a recent trip to one of these counties urged this matter on two of the representative men there. Their answer was that organization in that county was wellnigh impossible; that an utter lack of *esprit de corps* precluded the possibility of a county organization. Is it possible that petty spites and personal grievances can prevent these men from seeing beyond their narrow horizon the glorious possibilities of a thoroughly organized profession, reaching into every county in the Union? For this is indeed the keynote to the whole situation. The county society must be the unit on which to build this magnificent structure. To be

successful the local body must be alive, and if the local body is to exist and live, you, the reader of this editorial, are responsible. Sink personal grievances, talk to your professional brethren, arrange for a preliminary meeting and HOLD IT! This is the first time an earnest effort has been made to unite the medical profession of this State. Let it not be said that because of your indifference your county has no representation at the State and National conventions. Do not wait for your neighbor; do your duty as a public-spirited physician in your county, and do it now. The secretary of the State Society will be at all times glad to assist you in any way. Write to him. Let him know that some one in your county is interested in a united medical profession.

CHARACTER OF ADVERTISING.

The deplorable condition of medical journalism in this country is a matter that has frequently been commented upon. For the most part, every medical journal is supported only by its advertising, and consequently is controlled by the advertisers. As a result its advertising pages have comparatively little value, for the reason that few of the subscribers read them, and few who read have much faith in the one-sided story which they tell. They teem with advertisements of "proprietary" and straight-out "patent" medicines; medicines and preparations which no self-respecting practitioner should touch with a ten-foot pole, let alone even consider the possibility of using. Pages of very many journals are devoted to paid notices of these "proprietary" articles, and the average physician cannot tell them from the regular reading matter, which they purport to be. That such advertising pays is made evident by looking through the files of prescriptions at any drug store. Scores and scores of prescriptions will bear such directions as Plunk & Dollar's Pill No. 362; Worth's Syrup Dogood; Elixir rejuvinatis comp. A. B. & Co. And nine times out of ten the physician who orders this stuff does not even know what he is prescribing.

At least one physician of our acquaintance tears the advertising pages out of such journals he receives before he undertakes to even look through them.

The California State Journal of Medicine, the official organ of, and partly supported by the Medical Society of the State of California, does not propose to print any such advertising. It will attempt to make its advertising pages as useful to its readers as the pages of reading matter. So far as is practicable, the things advertised in this journal will be tacitly vouched for by the Journal; no matter will be accepted for the advertising pages that is not strictly ethical and legitimate; that is not directly opposed to the spirit of quackery represented by the "proprietary" and the "patent" medicine.

The editor, who is under bonds to publish the Journal monthly, and is personally responsible for all financial obligations connected with its publication, has been advised that he will secure little or no advertising on the basis outlined. This may or may not be true, but he is going to try it, even if he "goes broke." If the regular practitioners of this Coast and country desire to see one journal in the United States conducted on such a policy, then there is no danger of the Journal not paying its own expenses.

In another part of the Journal will be found an article, written by a layman, but a trained observer and a journalist of very considerable reputation on this coast, setting forth a few facts as to the sanitary —or rather unsanitary—condition of the Aleuts. To be sure, the blighting touch of civilization has been shown hundreds of times and in many quarters of the world, yet here it is graphically presented for consideration. The effects of change of food and clothing, with the consequent appearance of certain diseases, are worthy of note, for apparently endemic tuberculosis is at least one direct result.

LORENZ VISITS SAN FRANCISCO.

The visit of Professor Lorenz has not been an unmixed joy to a good many medical gentlemen of this country. The majority of the physicians of the United States regard too much newspaper attention rather as notoriety than as fame. It is urged that Professor Lorenz looks upon this feature of his trip with considerable amusement and not a little pleasure, thinking it an American custom; but surely he could have been disabused of this idea long since. Of his ability there can be no question; yet there are a number of men in our own country who are at least as able and who are not prevented from doing other surgical operations by reason of physical disability. All his surgical operations are bloodless; for he can now do no operation that is "bloody." In this country the bloodless operation for the relief of congenital dislocation of the hip has been practically abandoned for four or five years, for the reason that better results have been found to follow cutting down upon the joint, incising the capsule and ligaments, and thus replacing the head of the femur. The operation is performed under aseptic conditions, healing is rapid and uneventful, and the result is eminently satisfactory. Dr. Lorenz is beyond question an unusually able "bloodless" surgeon and a very charming man, yet it is somewhat nauseating to the self-respecting American physician to see the amount of newspaper notoriety that heralds and follows his progress through the country.

PROTECTION IN ORGANIZATION.

A recent editorial in American Medicine calls attention to the fact that the Philadelphia County Medical Society has taken steps to so reorganize its constitution and by-laws as to provide for protecting its members in malpractice suits. The value and importance of such a move cannot be overestimated. Mutual protection and work for the common good is the very keynote of organization, and a thoroughly organized medical profession could protect itself and its members at far less cost per capita than any insurance company doing business for revenue only ever can or ever could. If every physician belonged to a county society that was an integral part of a State society, such a solid organization could guarantee to protect all its members against malpractice suits and other blackmailing schemes; for the average malpractice suit is nothing more than legalized blackmail. Let every physician in California take this matter under careful consideration. It is not visionary; it is a practical project and could easily be managed if petty jealousies and trivial spite were laid aside just far enough to enable every practitioner in the State to come into the State Society. Under the reorganization plan the annual dues can be adjusted from year to year, so that the cost per capita would vary with the expenses. Probably at no time would the charge per member exceed five dollars, the amount of the annual dues under the old plan of organization of the State Society.

Organization means protection. In these days of "community of interest" schemes and combines it seems almost an absurdity to call attention to the value of combination and organization. Combine; organize; protect ourselves and each other.

URGENT NEED OF RESEARCH WORK.

Infection produced in man by contact with animals is a question for research work that has been knocking at the laboratory door for many years, yet has scarcely been admitted for consideration. In a few instances considerable work has been done; yet it is trifling in comparison with what remains to be done. For longer than it is pleasant to think about, the majority of the medical profession seems to have been of the opinion that every diseased condition encountered could be placed in one of the not very numerous classes of diseases or pathological conditions already well understood. Only within very recent years has the possibility of doubt crept into the minds of the men who practice medicine, to the fatal disturbance of this comfortable theory. Next to consolidation, what medicine needs most is a goodly corps of skilled and able men, well paid and substantially supported in the matter of laboratory equipment, to devote their lives to research work. There is still a possibility that medicine may some day graduate from an Art to a Science.

SAN FRANCISCO AND THE PLAGUE.

"Especial attention should be given to the resolutions, etc., published elsewhere of the national conference of the State and Provincial Boards of Health of North America, held recently in New Haven, Conn.* The authorities at San Francisco deserve the severest rebuke for their negligence in the matter of bubonic plague in that city. The various State Boards of Health in the United States are asked to unite in calling upon the Surgeon General of the Marine Hospital and Public Health Service to arrange at the earliest possible date a joint conference for the purpose of eradicating plague from the United States. Since March 8, 1900, there have been 88 cases recorded in California, 15 of this number occurring since September 9, 1902. It is rumored that many other cases have occurred which were not reported. The strange persistence in the policy of concealment on the part of the political and commercial authorities in San Francisco is thus having the result of which we have repeatedly given warning. It is not improbable that cases of plague are occurring in many parts of the West and South. We hope the officers of the Marine Hospital Service will extend their investigations into these sections, and that the policy of publicity and absolute frankness may prevent the appalling calamity that is bound to follow secrecy in these matters." —American Medicine, Nov. 8, 1902.

*The full text of this report and the resolutions will be found in another part of the Journal.

In the report of the meeting of the State and Provincial Boards of Health, as printed on another page, is stated that the Special Commission, after having been invited to work in the laboratories of the University of California Medical Department, were requested by President Benjamin Ide Wheeler to vacate the premises. This is not the case. Certain bills were pending in the State Legislature at the time which, had they passed, would have made every man connected with the Pathological laboratories of the University subject to a charge of felony.

When this fact was explained to the Commissioners they voluntarily moved to the City Hall and there conducted their investigations with apparatus loaned for the purpose by the Medical Department of the University of California.

President Wheeler did not have any connection with the matter in any way.

The circulation of the Journal is, by no means, to be confined to the members of the State Medical Society. The matter found in this issue furnishes a fair indication of the character of the publication.

Any reader not a member of the State Society who desires to become a regular subscriber, may do so by remitting $3.00 to the publication office, 31 Post street, San Francisco.

SOME NOTES ON THE VISIT OF PROFESSOR LORENZ OF VIENNA TO SAN FRANCISCO.

Reported by Philip Mills Jones, M. D.

PROFESSOR ADOLF LORENZ, a well-known orthopedic surgeon of Vienna, in making a tour of the United States, visited San Francisco and Los Angeles, arriving in the former city on the evening of November 2d from Salt Lake. He was heralded in the daily papers as a recently discovered star in the scientific firmament, whereas Doctor Lorenz has practiced his present method since 1895, and is the author of at least two works of wide circulation on the subject of orthopedic surgery.

Professor Lorenz is a tall, broad, muscular man of forty-eight or thereabouts, and wears a long, full beard. In speaking of his life and work he said:

"I was born on a farm in Northern Austria. My father was not particularly wealthy and I had to work hard—very hard. I did not go to Vienna until I began the study of medicine. When I entered the university there I soon became interested in orthopedic surgery, and I have since made this study the aim of my life. I was a poor student, at least so far as money goes, and I had no easy time of it.

"About nine years ago Paci, a well-known surgeon of Italy, and I, at about the same time, conceived the idea of an operation by manipulation—that is, an operation without the use of the knife. This idea came to both of us about the same time, as I have said. I operated upon a child and the operation brought about the happiest results. The operation was entirely successful.

"On the other hand, Dr. Paci chose for his patient an adult, and he failed at the time.

"That I did make and have since made such actual reductions have been proved by anatomical dissection, which is unanswerable. The X-ray, the functional result and the unmistakable phenomena at the time of the operation prove that actual reductions are made.

"The success of the treatment depends upon a minute attention to details after the first actual reduction of the dislocation is made. These details refer to the position of the limb, the stretching of the contracted and redislocating muscles and the enlarging of the anterior portion of the capsule of the socket, and by manipulation before encasing the limb in the plaster cast.

"After this is done I apply a plaster of Paris dressing, such as will thoroughly immobilize the limb and still permit sufficient weight to be transmitted through the shaft to the bone to enable Nature to do her part of the work in forming and deepening the socket, which must so grasp the head of the bone as to give it support after the patient dispenses with the plaster."

Tuesday forenoon a number of practitioners met Professor Lorenz at the offices of Dr. Harry M. Sherman to examine several cases and discuss the treatment employed by the distinguished Austrian.

The first case presented was that of spinal curvature in a young girl patient of Dr. Sherman's. He had first seen the patient in 1893 and had used the Bradford compression treatment to the spine, which helped somewhat. When first seen the deformity was rapidly increasing. The Bradford treatment, jackets and exercise kept the deformity about stationary. In 1901 she returned, but had not been wearing her brace for some time, and the tracings showed the deformity to be distinctly worse.

Doctor Lorenz said the patient looked to be a very healthy girl, but the question arises, is she rachitic? When the high point is at the center of the spine it seemed to him to indicate rickets. Doctor Sherman replied that he thought all of these cases are more or less rachitic. Doctor Lorenz said he should advise forcible flexion and extension. If there is pain, she should wear a corset or jacket. Doctor Sherman explained that there seemed to be more of fatigue than of pain. The patient had worn jackets of leather braced with steel bars made from a torso, the jacket being slightly straighter than the torso, for nine years. Doctor Lorenz said he felt that the patient should ask for the jacket, is it be properly made, must need its support and miss it when taken off. The child, he said, should have regular exercise, with forcible movements, pressure upon the spine and massage three or four times a day. The deformity would then probably not increase. In this opinion Doctor Sherman quite agreed. Continuing Doctor Lorenz said he would suggest a corset made somewhat longer and stronger than the ordinary corset. The child's mother said the girl did not like any pressure on the body at all. Dr. Sherman said the case was most unusual, for the girl had been brought up on a ranch, was very fond of outdoor exercise and particularly horseback riding. He called attention to the over-extension of the arm—a sign of rickets. Doctor Lorenz remarked there was no question of the existence of rickets, and that the prognosis was good for the deformity to remain as it is. He then mentioned a number of exercises, all of which Doctor Sherman said had been used by the patient in one form or another.

The next patient was a boy whom Dr. Sherman had seen when a baby. He had some trouble with the right shoulder, which the doctor thought was an incomplete posterior dislocation. Doctor Lorenz suggested that it was simply paresis of the muscles. Doctor Sherman stated that there had been some trouble and probably injury at the time of delivery.

He called attention to the peculiar way in which the arm hung, slightly forward, which seemed to indicate something more than simple paresis. Doctor Lorenz recommended exercise and games, such as handball and tennis, and forcible backward movements, so that the joint might become adductible. He recommended for exercise boring holes in a board with a gimlet. After getting all the help possible from muscular development it would be well to do an osteotomy to relieve the deformity.

The next case presented a rather unusual condition of ankylosis of the right wrist. Doctor Davis was the patient, and he received the injury while returning from the Philippines. In playing a game he fell with some men on top of him and suffered a severe sprain. He did not suffer at the time and there was nothing broken. Adhesions were broken up nine months ago. An X-ray plate had been taken the day before the present meeting, which showed the condition very clearly. Doctor Lorenz recommended forcible attempts at movement and exercise with dumb-bells. This he thought would give some relief. He would not advise an operation.

Two cases of spastic paralysis, showing nothing unusual, were also presented and examined.

Later in the morning of the same day Professor Lorenz, accompanied by a number of other doctors, visited the Children's Hospital and operated upon some children with congenital dislocations of the hip.

The first patient was a child eight or nine years of age. The only thing done, on account of the child's advanced age, was to change the dislocation from posterior to anterior, which will result in a slight improvement.

The next patient was a child six years of age. The right hip was reduced with very little trouble, but the left hip was more rebellious and required over a half hour to reduce. Doctor Lorenz announced that the operation will ultimately be successful. A plaster cast was put on the patient, and is to remain for six months.

It may be here stated that one of the points of difference between Professor Lorenz' operation and that practiced by Americans is the length of time the cast is allowed to remain intact. The tendency of American surgeons is to change the plaster cast every few weeks and not allow it to remain on for six months. Lorenz, moreover, applies the plaster over a pair of woolen drawers.

THE ALEUTS: SOME HYGIENIC OBSERVATIONS BY A LAYMAN.

By W. F. B.

AMONG those who have taken upon themselves the care and assistance of the Aleutian race, the problem of health is rapidly becoming of first importance. It is a fact that the ability of the Aleut to withstand the rigors of the climate and to survive the ravages of disease is steadily declining, and each succeeding year gives new proof of his failing physical condition.

Whatever he has been, just now the Aleut is anything but a robust specimen of manhood. He was never large, but the few traditions that have filtered down through the years tell of strength and prowess in war and in the hunt; and tales of physical endurance, of long sieges of hunger and thirst, and rapid journeys on foot over the roughest country of the northwest, seem to indicate that he was never lacking in bodily strength. Even now, hunters who have experience in many lands say that the natives from the Cook's Inlet country, when they can be persuaded to work, are the best packers in the world, and in the days of the otter hunting, not so many years ago, natives would pull steadily at the oars of the otter boats for days at a time; yet, with all that, a touch of the measles or a suggestion of the grip or any pulmonary trouble will wipe out whole villages in a few days.

The natives are peculiarly subject to lung troubles. Consumption is rampant among them, and they hand it down from generation to generation until practically all those along the coast and in the more accessible villages show the trace of its touch. Two years ago an epidemic of measles ran through the country from the Bering sea to southeastern Alaska, leaving hundreds of dead in its track. In some villages sixty per cent of the inhabitants died, and in others practically none were left. The grip, too, has had its own way among them.

In all these epidemics this fact is left clear and undisputed—wherever the Aleut has come in contact with the white man, there is the greatest mortality, and this has led to the belief among missionaries, government officials, and physicians who have watched the natives, that the change in the life of the Aleut is working his downfall. Before the entrance of the white man into the country he lived on oil procured from whales, seals and sharks—whale blubber, seal fat, fish, berries, roots, and even grass. He had no flour, no canned meat, no tea, no sugar, and no spirits. He clothed himself in skins and was warm. Now he wears a cotton shirt, cotton underwear and overalls, with perhaps the addition of an old coat for the winter months. It is believed by many, however, that the decline of the native's health is due more to his change of diet than to his present lack of warm clothing.

The reason for this is, that up to a certain point

the native seems unaffected by exposure. Along the southern coast, where the winter months are comparatively mild, the children will run barefooted through the snow until the temperature drops far below the freezing point. Buttoning the coat that was worn open is the only protection they ask from the wind, and men, women and children seem utterly indifferent to wet clothing. They are never far from the water, and they are always wet, but all they ask is to be allowed to sit in their own steam beside a fire not always warm enough to heat the ill-smelling little sod huts they like to live in.

These little huts, called barrabaras, are built without regard to ventilation or sanitation. They stand in little groups, and when the surroundings become too foul the people move. The main room in the barrabara is generally floored with dry grass. A hole is cut in the roof, and just below is the fireplace. In an adjoining room the inmates sleep, all together, and this is generally reached by a very low door. It may have a window, but this cannot be opened. It sometimes has a board floor, but it always reeks with the dampness of years and the entire absence of ventilation which is characteristic of even the best of them. The natives will sit in these houses and stew over the fire, and then they will go out into the cold, cutting air in their thin garments and cool themselves until they are blue in the fingers. But it never seems to harm them much until the end comes. Some day they have a slight cough. It increases, and then soon the news goes round the village that another man is spitting blood. They never last long, nor do they make any effort to help themselves. They continue the old course of life until they are too weak to leave their beds. The priest is sent for, and he prays over them. Some one watches by their side, but no one has any hope for them, and the end comes soon. When the Aleut has made up his mind that he is going to die, it is only a question of time, nor do any of his relatives or friends try to rouse him from his despair.

The effects of exposure were not so fatal during the early history of the race, although the natives were quite as indifferent to their comfort, nor was it as noticeable later when they began to discard their skin clothing; and in the more remote places, where the natives wear a good deal of the white man's clothing, but still adhere to their old delicacies—blubber and oil—the effects of exposure are not serious. This has led to the statement by at least one missionary, who has spent nearly his life among them, that it would be better if all the food of the white man were taken from the Aleut and he should be sent back to the gastronomic condition where he poured whale oil over his berries and ate the mess with gusto.

Outside of consumption, the grip and the measles, the native seems unaffected by disease to any great extent—that is, with the exception of syphillis. This is rife among them—another gift of the white man. All the conditions in which typhoid fever would love to revel are present in any Alaskan native village, but there has been no typhoid fever to speak of. Perhaps it is that the winters are too cold. In fact, the filth diseases that infect even the cleanest cities are hardly present in Alaska, at least among the natives. There are not many cases of deformity, nor is there any insanity. Perhaps it might be said there are not many who have the brains to become insane.

There are a few native doctors—part "medicine men" and part physician—who treat small aches and pains with herbs and incantations. There is a rough kind of surgery among them, but it is able to deal only with small things—a spear-head in the hand, the spike of a fox-trap in the leg, knife wounds and hurts of that kind—but they have no knowledge of cleanliness. They like to consult a physician whenever possible, and they like to take medicine, the more vile tasting the better. In fact, there are several medicines that they take as beverages. These are patent preparations rich in alcohol, which they know well, and with which they dose themselves to the point of intoxication—their purpose in taking the dose. They will get drunk, also, on cologne and Jamaica ginger. Florida water is a favorite drink with them, and they will have only the best when possible, as a man would ask for his favorite brand of whisky. But they are not particular when the supply is limited. Then they make a drink of their own—a kind of beer, and this they sometimes distill—when they can do so secretly, for it is against the law, or when the supply of beer is plentiful enough to give every man and woman what they want and still leave enough for the distilling kettle.

The drink, and particularly the food, are blamed for the decline of the Aleut. The best proof of this is the course of the measles, two years ago, through the reservations and the missions. There the natives were well clothed and were kept temperate, but they lived on the food of the white man, and when the epidemic had passed, there was but a remnant of them left. Practically every one upon whom the disease alighted lay down and died.

A newspaper dispatch states that the Washington, D. C., coroner performed an autopsy on the body of Miss Louise Hoge of Evanston, Ill., who had been under treatment of a Christian Scientist several weeks for typhoid fever, and who died at the Capital. The result of the autopsy was a decision that Miss Hoge died of pneumonia.

According to the Los Angeles *Express*, an unknown capitalist has supplied funds with which to establish a hospital for the treatment of deformed children by the Lorenz method.

Petaluma is to have a new sanitarium and hospital. Miss I. R. Cox, a trained nurse of experience, who recently rented the Phillips home on Sixth street, is at the head of the enterprise. A feature of the hospital will be an operating room which will be at the disposal of all local physicians.—Petaluma Argus.

REPORT OF A FATAL CASE OF GASTRO-DUODENAL ULCER; WITH AUTOPSY FINDINGS.*

By WILLIAM FITCH CHENEY, M. D.

-Professor of Principles and Practice of Medicine, Cooper Medical College, and Physician to Lane Hospital, San Francisco, Cal.

J. P. S. first called at my office on August 1st, 1901, complaining of pain in the stomach and vomiting. He gave the following history: He was a native of England, thirty-eight years old, by occupation a salesman in a hardware store. His father lived to be aged and died from some cause unknown; his mother died at thirty-six from a strangulated hernia; he had one brother living, but never had any sisters. The patient's previous history was of undisturbed good health until the onset of his stomach trouble; but for several years he had had recurring attacks similar to the one for which he now sought advice, though this one was more severe than any other he ever had. His last previous attack was in January, 1901.

The present attack began with pain in the stomach about three weeks before the patient came to me. This pain occurred especially after taking food and was always worse at night. It was felt just below the border of the ribs on the right side, was stabbing in character and ran through to the small of the back. Such pain had been present to a greater or less degree constantly during the three weeks, no matter what food was taken. Vomiting, the other chief symptom of his attack, had occurred quite regularly since the pain began. It always took place at night, but not every night, and always relieved the pain until food was again taken. The vomited material was mostly liquid, with some food particles in it, and was sour and irritating. No blood had ever been vomited, so far as the patient knew. Besides the pain and vomiting there had been a great deal of flatulence and belching. The appetite had kept good, but the man was afraid to satisfy it. At times there had been a sense of burning and soreness over the stomach, so that the pressure of the clothing could not be borne. The bowels had been persistently constipated. The patient had lost fifteen pounds in weight during the three weeks of his present illness.

Physical examination of the abdomen showed a slightly greater fullness along the right costal margin than along the left, but no other abnormality in contour; on palpation there was greater resistance in the right hypochondrium than in the left, and it was here especially that the patient complained of decided tenderness, although the epigastrium also was sore to deep pressure. There was no increase in the size of the liver or of the spleen, and no abnormality noted elsewhere in the abdomen. The heart tones were all clear, and breath sounds normal, and the urine showed no trace of albumen or sugar. After the Ewald test meal, the stomach analysis gave a total acidity of 71, with a marked reaction for free hydrochloric acid.

On this history and these findings a diagnosis was made of gastric ulcer, and the patient was advised to enter Lane Hospital for treatment. He went to the Hospital on August 2d, 1901. There he was put to bed and fed exclusively on milk, beginning with a half-ounce, with one drachm of lime water, every two hours, gradually increased until he received six ounces of milk and a half-ounce of lime water at each feeding. After this diet was begun, he never had any more pain or vomiting. In two weeks he left the Hospital and returned to his home. There he continued to receive an exclusive milk diet for two weeks more. Then gradually other articles of food were permitted, but he did not get back to general diet until the end of September. He called on me December 14th, 1901, to report himself perfectly well, having no trouble whatever with his stomach, having regained his former weight, and feeling as well as ever in his life.

I did not see the patient again until July 2d, 1902, when he called upon me, reporting that for about two weeks previous he had been annoyed once more by dyspeptic symptoms, especially pain after food and vomiting. There was some splashing on succussion and considerable tenderness over the stomach, but at that time no localized spot of tenderness. Analysis of a test meal obtained on July 3d showed a total acidity of 100: of this the free HCl was 70, the combined HCl 13 and the organic acids and acid salts 17. Hoping that the condition this time was simply a hyperchlorhydria without ulcer, I directed an exclusive proteid diet and prescribed an alkaline powder of bismuth and magnesia to neutralize the excessive acidity. But these measures afforded no relief. During my absence from the city in July, the patient consulted Dr. Henry Gibbons and was by him advised to give up his work and go to the country for rest. He went away for two weeks, but while in the country continued to suffer severely; and each evening became so distressed that regularly he was compelled to vomit, the vomiting relieving the pain.

*Read before the California Academy of Medicine, October 28th, 1902.

On August 4th he called upon me again, relating his troubles as just described. By this time the patient complained of a spot of tenderness well localized in the epigastrium, shooting through to the back. On the afternoon of August 5th another test meal was given, and the analysis showed a total acidity of 100, with free HCl 65, the combined HCl 25 and the organic acids and acid salts 10. Convinced now that an ulcer was certainly present again, I advised the man to go to bed at his home and to resume the old diet of milk and lime water exclusively. This he agreed to do. On the evening of the 5th, about 9 o'clock, while lying quietly in a reclining chair at his home, he suddenly vomited blood profusely, and had enough of a hemorrhage to cause syncope. When I arrived at his residence he had already been attended by Dr. William Himmelsbach, who lived near by, and had been revived from his faint and put to bed. He was given a hypodermic injection of morphine, an ice bag applied over the stomach and was ordered to receive absolutely nothing by mouth. He had no further hemorrhage during the night, and early the next morning, August 6th, he was removed by ambulance to Lane Hospital.

At the Hospital the orders were that the ice bag over the epigastrium should be continued; that nothing whatever should be given by mouth, and that the patient should receive every four hours a nutritive enema of peptonized milk, six ounces, with the yolks of two eggs. At 4:30 p. m. on the 6th he had a discharge from the bowels consisting of some bright red blood with many darker clots.

At 1:30 a. m. on the 7th, after sleeping the early part of the night, the patient vomited about eight ounces of bloody fluid, which left him feeling very weak; and his pulse rate, which had been about 90 on admission in the morning, now ran up to 122. Fifteen minutes later he had a copious bowel movement of black, tarry material. At 3:45 a. m. he again vomited what appeared to be clear blood, with some clots, and the pulse became so rapid and feeble it could no longer be counted at the radial. At 7:20 a. m., for the third time since midnight, he vomited blood, but this time it was small in amount and dark in color, evidently not fresh. At my visit at 9 a. m. the nurse was instructed to add ten drops of laudanum to each nutritive enema; and a mixture was prescribed containing one drachm of bismuth-subnitrate in a half-ounce of mucilage of acacia, to be given by mouth every four hours. At noon there was another copious dejection of dark, tarry material, and a third at 5 p. m. similar in character. Following this the laudanum was increased to twenty drops in each enema. Towards midnight there was still another passage from the bowels, like the others in character, but small in amount.

On the 8th all of the orders as previously given were continued, nothing being allowed by mouth except the bismuth mixture. There was no vomiting during the day, but three dejections of tarry, viscid material, evidently from the former hemorrhage.

On the morning of the 9th, the patient having had no hemorrhage since the morning of the 7th, was ordered one-half ounce of milk with one drachm of lime water by mouth every two hours. The nutritive enemata were continued, but once every six hours instead of four. The bismuth mixture was discontinued. The pulse was then 112 and of good quality, and the patient's general condition seemed much improved. For the next few days the progress of the case was in every way very satisfactory. The milk given by stomach was retained and was gradually increased, so that on the 14th he was receiving six ounces every two hours, with one-half ounce of lime water. The nutrient enemata were discontinued on the 11th. The pulse rate gradually came down to 96, the patient gained markedly in color and in strength, and the prospect seemed most encouraging.

On the evening of the 14th he complained for the first time since his hemorrhage of a pain in the stomach. This grew quite severe during the night and interfered with sleep. The ice bag gave no relief, and in spite of a hypodermic of heroin the patient had but little rest. On the morning of the 15th a hot poultice of flaxseed meal was ordered over the epigastrium, to be made very light and kept hot. This relieved the patient somewhat, but did not entirely remove the pain. On the morning of the 16th he complained not only of the pain, but of a sour taste in the mouth, of occasional belching of sour material that burned his throat and of nausea. This continued during the day, and finally at 4 p. m. he vomited a small mouthful of mucus. About fifteen minutes later he said he felt a flash pass before his eyes, and immediately afterwards vomited a copious amount of dark-brown fluid that on examination proved to be partially digested blood. The poultice was at once replaced by the ice bag and all feeding by mouth discontinued. The patient continued to be nauseated, was troubled constantly by hiccough and complained of hot and cold flashes going over his body. At 5:45 p. m. he again vomited a small amount of dark fluid, and at 6 p. m. five ounces of the same material. But after that he had no more distress, and during the night obtained considerable sleep at intervals.

On the morning of the 17th, as no vomiting had occurred since 6 o'clock the evening before, feeding by mouth was resumed, beginning with one ounce of milk every two hours. During the 17th, 18th and 19th all again went well, and the amount of milk allowed was gradually increased until on the morning of the 20th the patient was again receiving his six ounces every two hours. He was then feeling perfectly well, though weak. At 11:45 a. m. he vomited some curdled milk, but

not discolored, and as the vomiting was not repeated the nourishment was not discontinued.

On the 21st he continued to take his full allowance of nourishment all day without discomfort; but at 7 p. m., while drinking his milk, he again felt a sudden flash of light and vomited ten ounces of dark fluid resembling coffee-grounds. Again all nourishment by mouth was at once stopped; the ice bag was reapplied over the epigastrium; a hypodermic of morphine and atropin was given, and the nutritive enemata were resumed. No further vomiting occurred that night.

On the 22d, there having been no further vomiting, the patient was given at 10:30 a. m. one-half ounce of peptonized milk, but vomited it almost immediately. No further attempt to feed by mouth was made that day. Nevertheless, at 5 p. m. he vomited again, two ounces of greenish fluid, but no blood.

Early on the morning of the 23d, about 2 o'clock, vomiting occurred again, of a small amount of mucus but no blood. The patient was greatly nauseated the rest of the night and could not sleep. He had had no nourishment since the evening of the 21st except his rectal enemata, and felt very weak and wretched. At 6 a. m. he was finally given a hypodermic of morphine and under its influence slept for several hours. At 11 a. m a half-ounce of warm milk was given by mouth and retained, and every hour thereafter during the day. During the night this amount was doubled.

On the morning of the 24th it was discovered that both sides of the face were swollen and that it was hard for the patient to swallow. The temperature also rose during the day, so that at 5 p. m. it was 102 degrees. On examination it was found that a double parotitis had developed as a complication. This was treated simply by applications of hot camphorated oil. The patient was able to take one ounce of milk by mouth every two hours during the day, without nausea.

During the 25th two ounces of milk were taken every two hours and retained without any trouble. The temperature gradually fell and the swelling of the parotids decreased.

On the morning of the 26th the milk was increased to three ounces. During the day the patient complained of some pain in the abdomen, belched occasionally and was very restless; but there was no vomiting until 5 p. m., when he once more rejected his milk. He continued nauseated, and at 6:20 again vomited a small amount of curdled milk and some particles of disintegrated blood. All nourishment by mouth was necessarily discontinued. At 10 p. m. he had a copious, loose dejection, dark in color and tarry in consistency.

On the 27th the case rapidly proceeded to its climax. At 4:45 a. m. there was a second dejection of the same character as that of the evening before, a third at 7:15, a fourth at 11, and a fifth at 2:30 p. m., all of these passages consisting of old, digested blood. Meantime at 4 a. m. the patient had again vomited a small amount of bloody fluid, and again at 7 and at 11. Towards evening he became irrational and attempted to get out of bed. During the night he lay in a semi-comatose condition, had repeatedly small, loose passages from the bowels and vomited small amounts of bright blood.

On the morning of the 28th at 8 o'clock he vomited again bright blood. Meantime efforts had been made by means of strychnin hypodermically, infusions of normal salt solution and binding the lower limbs, to prevent collapse; but at 8:45 a. m. he expired.

Autopsy was made the same day at noon by Dr. William Ophuls, whose report is as follows:

"The post mortem was confined to the stomach. The stomach itself was of normal size. There was slight obstruction of the pylorus on the posterior surface; on the inside of the pylorus and the beginning of the duodenum there was an ulceration about two by three c. m. and about one-half c. m. deep. The edges of the ulcer were sharply cut. The ulcer was nearly oval. The bottom of the ulcer was clean, formed by a thin layer of fibrous tissue, through which one could see the pancreas. Near the middle and not quite in the middle of the ulcer there was an opening about two m. m. in diameter which led into a large branch of the arteria gastroduodenalis, About one-third of the ulcer was in the stomach and two-thirds in the duodenum."

Could anything more have been done than was done to save the life of this man? From a medical standpoint, I am convinced that no plan of medication or dietetic or hygienic treatment could have overcome the pathological condition that autopsy revealed. From a surgical standpoint, the case was discussed with Dr. Emmet Rixford, who saw it repeatedly with me in consultation. Before the first hemorrhage there was certainly no indication for operation. After the first hemorrhage, when Dr. Rixford first saw the case, the patient's condition was not such as to warrant operation even if it had been considered indicated. After the temporary improvement that followed the first hemorrhage, the blood count showed only 2,240,000 red corpuscles as the highest figure reached. After the second hemorrhage, surgical procedure such as would have been required to cure was never possible, because of the patient's reduced condition. On the 27th, the day before death, the red corpuscles were but 896,000 and the hemoglobin only twenty per cent.

I was convinced by the course of the case that the ulcer was situated in or close to the pylorus, so that whenever the quantity of milk given became sufficiently large to nourish the patient satisfactorily, peristalsis interfered with healing and led to fresh hemorrhage. With this condition in view, the operation contemplated was gastro-enterostomy, to put the pylorus at rest; but never

after the second hemorrhage was the patient's condition such as to justify the carrying out of this procedure. The autopsy showed us that excision of the ulcer could never have been done without removal of both the lower end of stomach and upper end of duodenum; even if gastro-enterostomy had been performed, the fatal erosion of the large vessel involved would in all probability have occurred just the same. It is difficult to see, therefore, in the retrospect of the case, knowing what we finally learned of the lesion present, how the ultimate catastrophe could have been averted.

CALIFORNIA ACADEMY OF MEDICINE.

REGULAR MEETING FOR OCTOBER.

DR. WILLIAM FITCH CHENEY read a paper entitled "Report of a Fatal Case of Gastric Ulcer, with Post Mortem Findings." Before reading his paper, Dr. Cheney called attention to the fact that the title as printed on the notices was somewhat erroneous; it was really a case of gastro-duodenal ulcer. The paper in full will be found on another page of the Journal.

Dr. Quinan said that there were several points of interest to him in the paper of Dr. Cheney. The temperature range was of great interest. Prominent surgical authorities were about equally divided as to whether early operation was advisable or not. In the present case, from the blood studies reported, he had no doubt that the method of internal medication as followed by Dr. Cheney was the best treatment that could have been employed. He asked whether the use of eggs in the enemata which were given to the patient was for a desired emollient effect, or for nourishment.

Dr. Barbat recalled a patient that he had recently seen in whose case there were some points of similarity to that of Dr. Cheney's patient. When he first saw her she seemed anemic and weak; the blood count showed 2,500,000, and the hemoglobine was 65 per cent. Pain after eating was marked and the diagnosis of gastric ulcer seemed very clear. Tonic and simple diet were prescribed. She improved rapidly and was not again seen until two months ago, when all the symptoms of gastric ulcer were again well marked and her general condition was worse than when first seen. Between Saturday and Monday evening she had four quite severe hemorrhages, and it was decided to operate. Cocain anesthesia was employed and the abdomen opened. Careful examination of the stomach did not reveal the presence of an ulcer, though every clinical symptom pointed to its presence. The viscera seemed to be absolutely bloodless. Patient died shortly after, and even when the stomach was removed the ulcer was with some difficulty found on the lesser curvature. It was small, indurated, and at the center was a perforation into a blood-vessel. He thought that a great deal of damage was caused by the destruction of blood, and that the depression, anemia, etc., was as much due to this destruction of the blood as to the ulcer itself or to the loss of blood by hemorrhage. The specimen was presented and examined with great interest by those present.

Dr. Wilbur mentioned a rather unusual case that he had recently encountered. The patient was a young man who had, shortly before coming under observation, been in the Philippines. The only history obtainable was that after a hearty meal the young man had engaged in a scuffle and that shortly afterward some pain in the abdomen was noted. It was not at the region of the stomach, but was near McBurney's point. There was no special indication of appendicitis, however. He had a severe attack of pain, while at Stanford University, to relieve which, chloroform was employed. On coming out from the anesthetic there was great relief. Later the pain returned; dullness and tenderness were found in the right hypochondriac region, and it was decided to send him to this city for hospital attention. He arrived in a comatose condition. There was no vomiting save after medicines had been taken. The temperature ran up rapidly on the following day, appendicitis was suspected and operation was decided upon. The appendix was found to be only a trifle hyperemic. When the belly was opened a few drops of a milk-like fluid ran out. He vomited one and one-half quarts of mixed food and blood. The wound was closed and an opening made higher up, which disclosed the presence of an ulcer; this was cut out and the wound sutured; the patient died a few hours later of surgical shock.

Dr. Ophuls, in discussing the case presented by Dr. Cheney, said that two points of interest presented themselves to him. First, the ulcer was found with some difficulty, even after the removal of the stomach post mortem. He doubted that it could have been found at all if an operation had been performed; certainly not easily. Second, the history pointed to two ulcers—one old and healed and the other more recent. It is certainly true that very large ulcers of the stomach wall may exist without producing symptoms at all diagnostic. He agreed with Dr. Barbat in the belief that as much damage to the patient resulted from the simple destruction of blood as from the ulcer itself or the hemorrhages.

Dr. Huntington dwelt upon the fact that dilatation of the stomach, which is supposed to be an ever present symptom when the pylorus is affected, was absent in the case reported by Dr. Cheney, and was absent in a number of cases observed by himself; or, if not absent, too trifling to be of note. He referred to a patient whose

history has been published. The patient was operated upon for what was supposed to be cancer of the stomach. Gastroenterostomy was performed and the man entirely recovered and is still alive and well. He thought that ulcers of this tract were undoubtedly due to some blood change, yet the fact remained that very many large ulcers healed without serious injury to the individual. He mentioned a case in which the patient had had a very large hemorrhage, yet eventually recovered. It is impossible to say when the blood plays an important part and when not. He was of the opinion that operations were not performed so early as should be the case, and that he who can early determine when internal treatment should be employed and when operative measures alone will suffice, is an exceedingly careful and expert observer.

Dr. Rixford said that he shared the responsibility with Dr. Cheney, for he had early been called in consultation. After the first hemorrhage it was positively decided to operate as soon as possible; he dared not at the time on account of the low condition of the patient. When the proper time had arrived, the man had another hemorrhage, and this postponed any chance of operation for the time. In these cases the question of operation is a very serious one, for the patients are seldom in good condition and the operation itself is by no means an easy one. In the present case, he thought that if a gastroenterostomy could have been performed the patient would probably have recovered. He then reviewed the histories of four or five cases of ulcer of the stomach in which operative measures had been undertaken, and in some with good results. In one there was a large indurated area near the pylorus which he thought cancerous; gastroenterostomy with the Murphy button was performed and the patient recovered. In his opinion the proper operation in most, if not all of these cases, is gastroenterostomy.

Dr. Brown called attention to the great importance of the proper medical treatment of these cases. He thought it unwarranted to give the patient anything by the mouth for at least two weeks after a hemorrhage from stomach ulcer. The danger, he thought, was in feeding these patients too much, or allowing too much material to enter the stomach. He stated that it was quite possible to sustain a patient for from four to six weeks simply by rectal feeding. He advocated the employment of remedial agents that would promote coagulation, and suggested gelatine hypodermically, and calcium chloride mixed with the enemata.

Dr. Taylor was asked by the chair to give his opinion as to the possibility of feeding, or sustaining the patient, by concentrated poteins and carbohydrates, introduced hypodermically. He said that the proceeding had been demonstrated upon animals, but that it had not, so far as he knew, been employed in the actual treatment of patients. There was nothing to prevent its use, however.

Dr. Cheney, in closing the discussion, replied to Dr. Quinan's question as to the use of eggs by stating that it was by no means original with him. He had found, however, that the yolks of eggs were mixed with the milk and the whole then peptomized, the enema was better retained than when the milk alone was used. In reply to Dr. Barbat, he could not recommend an operation as soon as the diagnosis was made, for the reason that a great many of these patients recover without surgical interference. It has further been stated, on excellent authority, that from four to five per cent of those who die from all causes, and on whom post mortem examinations have been made, show they have gastric ulcers that have healed. He thought that instead of there having been two ulcers, there had been but one; that it had healed more or less well, and then broken down again. In regard to the question of dilatation, he stated that the succussion splash had been noted in the present case, but that no dilatation was found. He thought the succussion splash a questionable diagnostic feature. He thought that forty-eight hours was a sufficient time to elapse after hemorrhage before introducing anything into the stomach. While Dr. Brown was theoretically correct in assuming that a patient could be well sustained for several weeks by rectal feeding alone, still in cases of ulcer of the stomach, with hemorrhage, it was not possible to more than keep the patient in the lowered conditions by this means; the loss of blood must be made up, and this could not be secured by rectal feeding alone. He strongly approved of the use of gelatine, to secure coagulation, when it could be applied locally, as in hemorrhage in cirrhosis of the liver. He could not approve of its use hypodermically, however, because of the generally coagulative action.

Drs. Newmark and Sherman presented a patient of whom Dr. Newmark gave the following history: He came to San Francisco in June, 1901, complaining that for four years he had been subject to very severe headaches; for the previous two years he had been so troubled to only a slight degree, but that a return had recently been noticed. There was also a partial hemianopsia. There was a family history of similar severe headaches. The headaches grew worse and the boy was given morphine hypodermically, almost constantly, to relieve the pain. Later he was again brought to the city, and when once more presented to Dr. Newmark he was comparatively free from pain and looked well. Examination showed choked disks and slight facial paresis. A tumor of the brain seemed the clear diagnosis, but its location could not be readily determined. After several examinations a tender spot was located on the right side of the head which seemed constant and always tender to pressure. This spot conformed fairly well to the

location of the lower facial center. He was then so fairly well and comfortable that operation was indicated and urged only on account of the choked disks. He was operated upon in August, 1901, and almost immediately afterward his vision grew rapidly worse. There was much pressure from within and some brain matter protruded. A sarcoma of the small-celled variety was diagnosed. In April it became necessary to once more operate. The two operations have been followed by paresis of the left hand and anesthesia of the left upper extremity; the vision is slightly better..

Dr. Cheney asked how long the cerebral hernia, or bulging, had existed, and Dr. Newmark replied that it had been present since the first operation.

Dr. Sherman said that at the time of the first operation, when the bone flap was lifted, the brain bulged out through the opening, and that differentiation between tumor and brain tissues could not be made. Somewhere between 30 and 40 c. c. of brain matter had been removed during the operation. Healing was uneventful. At the second operation he had removed much more brain tissue than that which bulged through the opening. He used the curet and the operation was followed by temporary hemorrhage, so a drain was placed and allowed to remain for forty-eight hours, after which it was removed and the wound closed. The skin had almost united when hernia cerebri appeared. Straps were applied and the boy sent home. The bone flap is now lifted, like a hinged flap, but the pressure from within. Occasionally a few amber-colored drops of fluid escape and then there is relief from pain and headaches. At the time of the second operation, and subsequently, the brain has been carefully explored by means of the tenotome, but no sinus has been found. It is a serious question, at present, whether to lift the flap again and remove the bulging tissue ,or to leave it as it is.

Dr. Somers referred to a case of injury to the brain, resulting in meningocele, which he had seen some four or five years ago. A small boy was accidentally shot in the frontal region. Trephining was performed, a button removed and the bullet extracted. The button was cleansed and replaced. A few days later pulsation and increase in size were noted, and the button was forced out. A mass of brain and granulation tissue extruded which was tender on pressure; for this reason strapping could not be used. The patient was referred to Dr. Rixford and skin-grafting was decided upon. Grafts were taken from the thigh, they united readily and the tumor steadily decreased in size.

Dr. Sherman said that the present condition was not a true hernia cerebri; it was a carcinoma of the brain, which, by causing pressure, forced the brain through the wound.

Dr. Rixford called attention to the fact that in the case cited by Dr. Somers, the skin-grafting had certainly been of some benefit; contraction of the skin grafts had exerted the gradual pressure that reduced the mass, whereas the pressure by straps could not be tolerated. He further expressed the opinion that, as McBurney of Glasgow has demonstrated, it is often a good thing to allow the tumor of the brain to force a large amount of tissue out, and then scrape it off. Of course, such procedure is modified by the size and shape of the mass in each case.

Dr. Mark White, of the M. H. Service, exhibited some specimens and slides of the Distomum Fineuse.

He said that but little had been written about it, and but little was known. It is not native to this country, but is found more or less generally in the Orient. The habitat of the worm is the fresh water or pond snail. He had observed the presence of this infection in seventeen patients, sixteen of whom had died of the plague. There are no diagnostic features, and the presence of the infection can only be determined by finding the eggs of the worm in the feces. The worm is swallowed, digested, and portions of the worm and its eggs may be found in the feces. It acts more or less directly upon the walls of the bile passages, causing a thickening, and produces death in from six to eight years. There is said to be a barrel shaped alteration in the shape of the liver, but this is not always present, nor is it easy to determine, even if present. The infection produces chronic diorrhœa, edema and jaundice He had seen but one live worm, and had not been able to detect the presence of the disease before death in any case. In his opinion, if the pond snails of this country become infected by the worm, brought from the Orient inadvertently, the disease will soon be epidemic and very dangerous. All animals, including the human animal, coming from the Orient, and all materials in any way liable to convey the worm into this country, should be very rigidly examined. He was of the opinion that it would be found here sooner or later, as would also most Asiatic diseases.

DEATHS.

Dr. John Byrne, president of the faculty of St. Mary's Hospital, Brooklyn, and one of the greatest of American gynecologists, died in Montreaux, Switzerland, the first of this month. Dr. Byrne was born in Ireland in 1825 and came to Brooklyn in 1848. He was one of the founders of the Long Island College Hospital, and in 1868 organized St. Mary's Female Hospital in Dean street. He was the author of many articles on gynecology and surgery.

Dr. Gregory J. Phelan, a pioneer of 1849, died on the 5th inst. in San Francisco. He was born in New York 1822. He was connected with St. Mary's Hospital for many years. Dr. Phelan was stricken with paralysis about three years ago and never recovered.

THE MASTOID OPERATION IN CHRONIC SUPPURATIVE OTITIS MEDIA.*

By H. BERT ELLIS, M. D., Los Angeles, Cal.

Professor of Ophthalmology, College of Medicine, University of Southern California.

OF ALL diseases with which the otologist has to do, probably chronic otitis media gives him the most annoyance. These cases, more frequently than otherwise, are unsatisfactory to treat on account of their obstinacy to all the blandishments of the most versatile of conservative specialists; and further, on account of their proneness to recur, though pronounced cured, on the slightest provocation, even after lying dormant for shorter or longer periods of time. It is sometimes not an easy matter to draw a hard and fast distinction between an acute and chronic otitis media, as time is not always the important factor in chronicity, for chronic cases are usually mild as to intensity besides being slow as to progress, while acute diseases are attended with more or less violent symptoms which come speedily to a crisis, but some chronic conditions may have decidedly violent symptoms throughout. (1.)

For discussion, it will be convenient to divide our cases of chronic otitis media into four clinical groups. In the first, we will place such cases as are influenced in regard to their chronicity by the presence of adenoid tissue in the post nasal space or hypertrophied terminated bodies in the nares. Here, the cause is largely mechanical, the secretions being retained by the pressure of these growths and the hyperemia of the mucosa with progressive round cell infiltration and a pyogenic process. Early this pyogenic process affects the tympanum alone, but in the second group the mucosa is hypertrophied, granulations spring up and polypoid degeneration sets in. The degeneration extends to and involves the periosteum, interferes with the protection and nutrition of the ossicles and bony walls of the tympanum and accessory spaces, giving rise to foci of necrosis and caries. In the third group, we have evidences of progressive involvement of the mastoid antrum and mastoid cells, with cholesteatomatous formations. In the fourth group, the chronicity is evidently due to some systemic trouble, such as syphilis, tuberculosis, diabetes or Bright's disease. If the disease, although of recent date, was not preceded by pain or other manifest symptoms, except the discharge, a tuberculous etiology is suggested. If in the presence of the otitis, on testing with the tuning fork, there is found to be considerable diminution of bone-conduction, this would indicate disease of the labyrinth associated with the middle ear disease, and in all probability secondary to it. (2.)

The profession in general are too prone to neglect "running ears," and to pass such cases over lightly, saying "they will outgrow it in time." It certainly is true that many affected with chronic purulent otitis media live to an advanced old age and die of some disease not even remotely connected with this trouble; but, on the other hand, the disease progresses so insidiously that one cannot be certain when and where it may end. When the tympanic cavity has become the seat of chronic suppuration with the mucous membrane extending into the antrum, involved, it becomes a standing menace to the safety of the patient. (3.)

All cases of chronic otorrhea are interesting to the conscientious aurist, and they certainly are to me; but in those cases where the disease has passed the boundaries of the normal institute of hearing, then it assumes an importance and interest second to no other. It then attacks the vital center itself, and phenomena are produced, the variety and multiplicity of which are only limited by the number of separate and individual areas of the brain and surrounding structures. (4.)

A professional classification of treatment according to expressed views, writes Frank Allport, might be designated as follows: The *ultraconservatives, conservatives* and *radicals.* The ultraconservatives are those still possessing an abiding faith in the syringe, cleanliness, insufflations, drugs, mild surgical procedures such as polypi removals, etc., and who believe that all decided surgical measures, such as ossiculectomies and tympanal curettage,or worse,are not only unnecessary, but unwarrantably dangerous unless distinct mastoid symptoms are present. The conservatives are those who give the previous treatment an opportunity of several months to effect a cure, failing in which, the tympanum is usually swept clear of pathological products. Many of them, but not all, regard a radical mastoid operation as a *dernier resort*, not to be performed until all other means have failed, after persistent effort, and perhaps not then in the absence of mastoid symptoms. Other conservatives advise a radical operation more readily. The radicals are those who waste no time over the preceding methods, but open the antrum, mastoid and tympanum as soon as chronicity is established. In this view they are supported by the opinion that the mastoid antrum is an actual anatomical extension of the tympanic attic, and unusually participates in chronic suppuration of the latter, and should be thoroughly opened and cleaned as soon as brief ordinary unavailing treatment has practically proved the existence of antral disease. They believe, therefore, that chronic otorrhea implies antrum involvement, perhaps induced by exuberant middle ear granulations, which retain antral pus, unreachable and incurable by tympanal treatment or operation, and that such measures are mere placebos. They feel that necrosed bone in other parts of the body, even when exposed to view and readily subject to local treatment by acids in proper strengths, is treated by the skillful surgeon by radical surgical intervention, and not by tedious and unsatisfactory applications. They feel that the important and complicated structures of the middle ear should be treated upon the same general surgical principles, but with their importance much accentuated. They also believe that an effort should be made to save the ossicles in a fairly physiological condition, naturally impossible after ossiculectomy, and that the only probable method of accomplishing this is by the performance of the radical operation. (5.)

The great number of patients that formerly died with inflammation of the bowels we now believe died with appendicitis. We know that many who are reported to have died with brain fever, came to their end through infection from the middle ear. (6.)

Conservatism is a worthy quality when it is supported by clinical experience, which is the criterion for rational treatment. Therefore, when faithful and

*Read before the Western Section of the American Laryngological, Rhinological and Otological Society, held at Los Angeles, California, April 3rd, 1902.

correct treatment has failed to accomplish a cure of chronic suppurative middle ear otitis, even if there are no manifest symptoms of serious destructive processes within the attic, antrum or mastoid, we must, without hesitation, resort to more heroic measures. (7.)

Hiram Wood relates two cases in which mastoid symptoms were slight and late in appearing, but in both of which operation showed extensive necrosis with symptoms of general infection out of proportion to the apparent involvement. (8.)

With advanced years osteosclerosis of the mastoid process frequently occurs, but is usually confined to the external portion, while the internal portion of the temporal bone retains its spongy character. For this reason suppurative processes do not readily work outward, while serious lesions may be progressing in the depths. This fact forces the conclusion that patients over forty with inflammation of the middle ear should be operated on as promptly as possible, otherwise rapidly fatal cerebral complications are liable to supervene. (9.)

Tuttle says: "All cases of chronic purulent otitis media resulting in mastoiditis should be operated on at the first appearance of symptoms without resorting to palliative measures, and that we are justified in opening the antrum for drainage in chronic cases of this condition without symptoms of mastoiditis." (10.)

MacEwen lays down this axiom: "When a pyogenic lesion exists in the middle ear or in its adnexa, which is either not accessible or which cannot be effectually eradicated through the external ear, the mastoid antrum and cells ought to be opened." (3.)

It certainly requires conviction and courage to advise a radical operation on the absence of mastoid symptoms, especially in the early stages of a chronic discharge. So many people are unquestionably cured of such a discharge without an operation that patients who become familiar with this fact must indeed have supreme faith in their surgical adviser when they mount the operating table under these circumstances; and it must be admitted that a consequent facial paralysis, impaired hearing, protracted healing, continued discharge, fistula or death cannot serve to exalt the professional position of the operator in the minds of the laity, the profession or even himself. Of course, the complexion of the case absolutely changes in the presence of long-continued discharge unchecked by persistent conservative procedures, cholesteatoma, or of mastoid or intracranial symptoms, under which circumstances the patient himself frequently demands radical relief. But in the absence of such indications, no surgeon should be blamed for the advocacy of conservative measures, especially when it is remembered that a cessation of the discharge and improvement of hearing frequently follows ossiculectomy and curettage. These illy defined and insidious forms of chronic otorrhea with antrum or cell infection, but unaccompanied by palpable symptoms of such extensions, are certainly difficult ones in which to decide upon a plan of action unless one happens to be a radical in his opinion. The gravity of the situation may not be always measured by the quantity, quality or odor of the discharge, although these indications often mean much; but certain ill-defined symptoms, such as a slight rise in temperature, irritability, nervous exhalation, mental depression and general appearance of parts, are not without their significance.

Concerning the radical operation, it may be confidently stated that he must be very conservative indeed who denies the advisability of such a step in the presence of mastoid or intracranial symptoms, or of distinct organized cholesteatomatous masses. And there are many eminent surgeons who would not advise a radical operation in long-continued and intractable discharge without the above history, but there are at present comparatively few who are willing to go on record as advising such an operation as soon as chronicity of the discharge is established, say in a few weeks after the inception of the discharge. And yet we must not forget the eminence of the authority on this side of the argument, nor fail to lay much stress upon their plainly spoken opinions. Most of the radicals are our teachers, men to whom we look for advance and correct thought, and their sentiments cannot and should not be turned lightly aside and dismissed as too extreme. It may be that their very eminence and skill in operating, however, has much to do with their results and consequent views, and the question may be justly raised whether inferior but ambitious operators are warranted in following their leadings. (5.)

Stucky says: "The anatomic construction of the middle ear favors pathologic conditions, and he considers the establishment of free drainage most important in the cure of this condition. In all cases in which there is a large-sized canal with chronic disease of the attic, perforation of Shrapnell's membrane, and all the conditions attending suppuration and often necrosis, removal of the ossicles with a portion or all of the anterior attic wall and remnants of the drum membrane is considered the most conservative and satisfactory treatment. In chronic suppuration with cholesteatoma and necrosis of the posterior superior wall of the canal, the radical operation should be performed. The following claims are made for the conservative method, viz.: (1) It gives free drainage. (2) It affords an opportunity to successfully combat the suppurative process. (3) It is free from danger to life and health. (4) In a large percentage of cases the disease is arrested, the hearing improved, only rarely made worse.. (5) There is no deformity or scar." (11.)

On the other hand, quoting from MacEwen: "The object of the mastoid operation is not to drain the inflamed chambers of the middle ear. The object of the operation is to remove the disease. After that has been accomplished there will be nothing to drain away. In the class of cases under consideration, it is necessary to remove the disease from every recess to which it has penetrated. Not only should the antrum and the cells be freed of the infection, but the tympanum should always be thoroughly curetted, and the malleus and incus should be removed when they are in a state of caries. Sufficient bone must be cut away to give the operator an opportunity to ascertain the precise condition of the various parts. Objections may be raised against this doctrine on the supposition that such radical invasion of the middle ear will prove disastrous to its function. So far as may be compatible with the well-being of the patient, I agree that the integrity of the ear should be conserved. But the handling which I have advised for the tympanum, however rough it may appear to be, does not necessarily injure the hearing. Whenever the ossicles are so diseased that they must be removed, we shall find that the function of the ear had been destroyed some time before that operation was undertaken. Repeatedly have I demonstrated the fact that the most thorough curetting of the middle ear is not incompatible with the preservation of acute hearing." (3.)

In recent years the great value and desirability of having microscopical examinations made of purulent discharges from the middle ear has become manifest. Statistics show that if the diplococcus pneumoniae (Franekel) alone be found, one may prognosticate a speedy cure; and further, one may, with equal confidence, sew up the mastoid wound completely and discharge the patient in about one week, or, at most, in not over two weeks.

With streptococci alone present, fifty per cent come to a cure. With the streptococcus and pyocyaneous, the chances are even of an eventual, if

tardy, cure. With streptococci and staphylococci, the chances are two to one against cure. If staphylococci alone, four out of nine may come to a cure. If pyocyaneous alone, one-half may be cured and the others may prove stubborn. If coli bacillus communis be the germ, it is practically incurable. All these may prove stubborn and resisting, except the diplococcus pneumoniae (Franekel), which yields forthwith to pepsin. About one-fifth of all the cases come in this class. (12.)

In regard to the conditions calling for operative interference, we may say: The patient's subjective symptoms are, as a rule, not particularly reliable, the appearance of the skin over the mastoid may be very deceptive, but if a fistula exists, opening either with or without the external auditory canal, operative interference becomes a necessity. Pain or pressure over the point of the mastoid process is not at all constant, but if present there or at the base it is indicative of mastoiditis; if it exists at the posterior border of mastoid, it is disquieting and brooks no delay on the part of the surgeon. Torticollis in the course of a chronic otitis media makes one suspicious of pus burrowing from the mastoid into the deep tissues of the neck.

M. Lermoyez says. "In case of tumefaction of the soft parts over the mastoid, with edema, examine the condition every day, and if a point of fluctuation is discovered in the midst of the edema, operate at once. A still more important indication is furnished by the swelling of the mastoid *en masse*, with the skin normal, scarcely to be distinguished except by comparing the two sides, always bearing in mind that the right is normally larger. Trephine then immediately, as there is every chance that the sigmoid sinus is already bathed in pus. If abundant suppuration persists after a month of rational treatment, and the amount increases, mastoid otitis is certain. If the discharge remains fetid, it indicates some old lesion, generally a cholesteatoma. In this case trephining is insufficient and total petromastoid evacuation is demanded." (13.)

Otogenic fever of even 100 degrees, if the tympanum has been amply incised, and drainage be free, demands trephining. With cerebral symptoms, first investigate whether they are exclusive otogenic; if they be, trephine the mastoid at once, but do not go beyond the antrum. If this does not afford relief, open the skull the following day, but always proceed by one step a day, providing you have been watching the case from the beginning of the cerebral symptoms. If the ophthalmoscope shows the eye intact, the chances are in favor of "simple meningitis"; hyperemia of the papilla warns of cerebral complication, and optic neutritis indicates a developed meningo-encephalitic lesion. Mastoid lesions are more precocious and profound in the otitis due to scarlet fever or la grippe than in that which follows measles or a cold. Hemophilia and advanced diabetes, not meningitis, are contra-indications to operation. Instances have been recorded of otitic meningitis cured by extensive trephining of the mastoid without opening the dura. In all persistently unsatisfactory cases of chronic otitis media operate, but never make a Wilde's incision alone. It can seldom do good and may do much harm. It has never cured excepting a case of mere retroauricular suppuration of lymphatic glands, and owes its reputation largely, if not exclusively, to errors in diagnosis. (13.)

F. W. Tunnicliffe and Otto Rosenheim say: "The presence of polypus or granulation tissue is indicative of antrum or attic trouble, or both; suppuration from the middle ear which does not yield promptly to treatment should be subjected to surgical interference." (14.)

How, then, may we determine the existence of antral disease in a case without significant symptoms? It is impossible to answer this question definity, there being no fixed rules by which to ascertain such extension in quiescent cases, and an opinion must be accumulated by composite observation, which is nevertheless reasonably trustworthy. Aural discharge, especially if persistently foul and profuse, continuing in spite of proper local treatment for a period say of three months, is a decidedly suspicious condition, particularly when accompanied by recurrent and exuberant granulations and necrosis. Especially is this true if the membranal opening has been in Sharpnell's membrane, or in the posterior superior quadrant of the main membrane, and if carious bone can be located in the upper and posterior wall of the tympanic cavity, or if the upper and posterior walls of the deep meatus are red, bulging or sensitive. These observations are much strengthened if the discharge is cheesy or flaky or contains the streptococcus, influenza or tubercle bacilli, and if the tympanum has been cleared by a curettage. A case presenting such a picture, or even a reasonable portion of it, even if absolutely unaccompanied by mastoid or other significant symptoms, would certainly lead most progressive surgeons to unhesitatingly advise either an ossiculectomy or radical operation. (3.)

Herman Schwartze, the wise sage of Halle, said, viz., that the diagnosis of cranial abscess could be made with probability only, and never with absolute certainty; that all the symptoms might be present without abscess, or, on the other hand, with not a single symptom it could yet be there; but given a focus of pus of otitic origin in the cranial cavity, where would we most naturally expect to find it, and how would the symptoms vary according to the location? By far the great majority occur, first, as extra-dural; second, as temporo-sphenoidal, or third, as cerebellar abscesses. Now it is a well-known fact that extra-dural abscess gives no characteristic symptom, even when there is a large amount of pus, and can with certainty be said to exist only when the fistulous opening is discovered and the pus gushes or exudes from this opening. Pressure symptoms, when the collection is great, may present themselves, especially the slowness of pulse. The second variety —temporo-sphenoidal—and a common variety, by the way, are often characterized by facial or hypoglossal paralysis, or some form of motor or sensory aphasia. Word deafness may occur in abscess of first temporal convolution. It is in the cerebellar abscess, however, that we get some of the most characteristic symptoms. Pain, nausea and vomiting are uncommonly severe and persistent. But the chief symptoms are the cerebellar ataxia, a feeling of dizziness or vertigo, and the two together are, by Hessler, who has collected large statistics, considered pathognomonic. (14.)

It is not to be wondered at that, however brilliant the diagnosis may be, and however skillfully the operation may be done, success does not always attend work along the line of otitic cerebral surgery. The localization of the lesion is not always clear. Lesions may exist other than those made clear through the grouping of symptoms, and the pathological changes exposed may have progressed so far as to preclude the possibility of successful issue, all of which are independent, in the light of our present knowledge and skill in diagnosis and surgical intervention. It therefore becomes incumbent upon us to report not only our successes, but more imperative to report our failures, as through them not only we, but likewise others, may profit. I fear that we are too prone to report our successful cases and too apt to forget our failures. To be sure, it is no disgrace for one to fail in relieving a helpless or moribund patient, but nevertheless the human mind is so constructed as not to wish to subject failures to the close scrutiny of criticism. (15.)

I will, however, report my four unsuccessful cases.

CASE 1.

I. O. W. H., age 24, the son of a physician and a Stanford student, was referred to me on the 10th of August, 1900. He reported that he had had ear trouble for seven years, and that Dr. W. E. Hopkins, of San Francisco, had removed the small bone from his right ear six years ago, but for the past ten months the ear had been suppurating. He also reported that while there was no actual pain in or about the ear, that there was an indescribable something in the right side of his head which prevented him from making close application to his work, and so he had to quit college to have his ear treated. He could hear the watch at a distance of three inches. There was no tenderness in the mastoid region, the suppuration was scant and mucoid in character, and he seldom had an afternoon temperature of more than a half degree elevation. I found a large amount of adenoid tissue in his post-nasal space, which I removed; put him under careful treatment, both as to diet and local application, until the following February, when, the discharge being no less and his mental disquietude greater, and the retina of the right eye more congested than the left, I did an antrectomy.

The mastoid was eburnated, so finding the chisel too slow a process I used the drill; but even with this did not succeed in finding an antrum, though I did make communication with the attic. A peculiar accident occurred in the use of the drill; as I entered the attic a quarter of an inch of the tip of the drill snapped off. As no pus nor granulation tissue had been discovered, and irrigation through the wound had free vent through the ear, the consulting physician was not willing that I should remove the postero-superior wall of the meatus. He took this position largely, however, I think, because of the condition of the respiration and pulse of the patient at that stage of the operation. I closed the wound with catgut sutures and had healing without suppuration inside of a week. The patient was extremely nauseated for forty-eight hours, vomiting or hiccuping at very short intervals. On the eighth day, upon irrigating the external auditory canal, I washed out the end of the drill. In two weeks the ear had ceased suppurating, and the patient was looking forward to his return to Stanford in the fall. On the 24th of March, five weeks after the operation, a soft place appeared in the cicatrix and I evacuated about five minims of pus, and the wound healed without further trouble. On the 30th he went to a dance, from which he returned early in the morning, and along about ten o'clock a. m. he had an epileptic fit, and remained unconscious for thirty-six hours, during this time having two other paroxysms. He gradually grew better, but with much temporal headache, till the 8th day of April, when he became much worse. His mind was wandering and his temperature very high. On the 9th of April I trephined over the right ear and slightly behind it, but found only softened brain tissues, without pus. He died some six hours later. No autopsy.

CASE 2.

W. R., a hearty country boy, age 19, referred to me March 17th, 1902, gave history of discharge from right ear since December 1901. For the preceding two weeks he had had considerable fever, running as high as 104 degrees, with tenderness and swelling at the tip of the mastoid and below. An antrectomy was performed, granulation tissue only was found, and pus was not found at the tip of the mastoid. The wound was packed with gauze; patient was slightly nauseated and had one vomiting spell during the day. Thirty-six hours later he had a chill with a a temperature of 104 and free perspiration. This was repeated in thirty-six hours, with a range of temperature from 99 to 105.1 degrees. From this I diagnosed thrombosis of the sigmoid sinus. So on the 11th, under chloroform, I opened the lateral sinus, removed the clot and obtained free bleeding from both ends of sinus opening. There was marked improvement for two days, when suddenly the temperature went from 100 degrees to 104 degrees, and the pulse from 96 to 150, accompanied by headache and vomiting, and this, in turn, being followed by stupor and delirium. On the 15th, the wound being perfectly clean and no indication of thrombosis of the external jugular, I trephined the cranium one and a half inches above and one and a quarter inches posterior to the auditory canal, punctured the brain in several places, but failed to locate any pus. The pressure, however, was sufficient to cause the brain to bulge markedly through the trephined opening. Cheyne-Stokes respiration set in shortly afterwards, and he died some nine hours after the last operation. No autopsy.

CASE 3.

R. J. C., male, aged 55, referred to me March 11th, 1902, with a history of discharge from the right middle ear, following la grippe, since the last of December, 1901. He had complained of being dizzy for at least two weeks. The discharge had ceased a few days before he was brought to me, but after its cessation the dizziness had become markedly worse, the temperature was ranging around 102 degrees, he had vomiting of an explosive type, convulsive movements of the legs and some neuralgia of the right side of the face, and retention of the urine, but for some days comparatively little pain in the ear. He entered the California Hospital on the 11th of March, with a temperature of 102 degrees and a pulse of 90. On the second day he complained of double vision, was drowsy, irrational, restless and hard to manage. Use of the opthalmoscope gave only negative information; the temperature was erratic, varying from 95 to 102 degrees in the axilla, frequently being 1½ degrees higher on one side than the other, the right side usually being the higher, but not always. His mental symptoms becoming worse, his urine being normal (although always removed artificially), and the typhoid tests proving negative, operation was decided upon. On the 15th, the antrum was opened, but only granulation tissue was found. On the 17th he was quite rational; on the 19th he became worse; on the 21st Cheyne-Stokes breathing set in, and on the 25th he died. Autopsy by Drs. Brainerd and Lasher, no microscopic lesion was to be found, not even a local meningitis at the seat of trephining. No report has yet been received in regard to the microscopic conditions found.

CASE 4.

G. B. M., female, age 17, was referred to me March 17th, 1902, with the following history: Three weeks previously had an attack of acute otitis media, right ear, followed by typhoid fever, and for a week had been having chills, and part of the time was unconscious, with a range of temperature from 98 to 106 degrees within twenty-four hours. Marked tenderness over the antrum, with some swelling below the tip of the mastoid. Opened up the antrum, evacuating pus from there and some of the larger mastoid cells; exposed the lateral sinus, opened and removed clot, obtaining free bleeding from sinus in both directions; removed all softened bone; packed wound with gauze. Half an hour after the operation patient was bright and cheerful, but within twelve hours became delirious and rapidly sank, with symptoms of brain involvement. No autopsy.

BIBLIOGRAPHY.

1. Century Dictionary.
2. John F. Oaks, Philadelphia, Medical Journal, March 24, 1900, page 685.
3. Wm. MacEwen, Diseases of the Brain and Spinal Cord.
4. Andrew Timberman, Columbus Medical Journal, July, 1901, page 352.

(*Continued on Page 18.*)

PROCEEDINGS OF THE REGULAR MEETING OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY, HELD TUESDAY EVENING, NOVEMBER 11, 1902.

The regular monthly meeting of the San Francisco County Medical Society was held in the parlors of the Y. M. C. A. Building, President John C. Spencer in the chair.

After the reading and approval of the minutes of the last meeting, and the usual routine in opening the session, Dr. Harry M. Sherman read a paper on "Points in the Management of Cleft Palate Cases, Before, During, and After Operation."

Doctor Sherman exhibited a number of instruments used in the operation discussed, to the Society.*

Doctor Sherman also read "A Note Regarding Supra Condyloid Fractures of the Humerus."

This subject was discussed by Dr. Rixford, Dr. J. Henry Barbat, Dr. Cooper, Dr. Hunkin, and Dr. Kenyon, the point at issue being the best position in which to dress the fractured arm.

Upon the suggestion of the authors, the reading of two papers announced to be presented at the meeting—"The Diagnosis of Diseases of the Gall-Bladder," by Dr. W. W. Kerr, and "Report of a Case of Acute Phlegmonous Cholecystitis," by Dr. L. W. Allen—was postponed until the next regular meeting.

The annual reports of the Secretary, Treasurer, Librarian and Standing Committees were read. The Librarian recommended several changes with reference to the list of journals subscribed for and pertaining to the Library, which were approved.

After the Treasurer's report had been read, showing a larger balance in the Treasury than the Society needs for covering current expenses, on motion of Dr. Gibbons, $600 was transferred to the Trustees for deposit in a savings bank.

The election of officers to serve for the ensuing year resulted as follows:

President.....Louis A. Kengla.
First Vice-President.....Theodore Rethers.
Second Vice-President.....Redmond Payne.
Secretary.....William F. Barbat.
Assistant Secretary.....H. E. Alderson.
Treasurer.....Frank R. Dray.
Librarian and Curator.....Vard H. Hulen.

Trustees: Henry Gibbons, Jr., W. W. Kerr, L. L. Dorr.

Executive Committee: E. M. Bixby, W. P. Harvey, George McChesney.

Committee on Admissions: L. W. Allen, Dora I. Dorn, J. Mora Moss, A. W. Morton, H. B. A. Kugeler.

Committee on Ethics: Leo Newmark, Philip King Brown, Stanley Stillman, William Fitch Cheney, George B. Somers.

Committee on Finances: E. L. Wemple, E. G. Frisbie, G. Caglieri.

Committee on Library: Vard H. Hulen, Clarence Quinan, Dudley Tait.

Committee on Public Health: William Ophüls, J. M. Williamson, Louis Bazet, W. A. Martin, Emma Sutro Merritt.

Delegates to the Medical Society of the State of California: H. A. L. Ryfkogel, M. W. Frederick, Emmet Rixford, Wallace I. Terry, J. Henry Barbat, William Fitch Cheney, A. W. Perry, John C. Spencer.

A resolution, adopted by a rising vote, was passed conveying to Dr. John C. Spencer the appreciation and thanks of the Society for his distinguished services as president during the past year.

Adjourned to meet the second Tuesday evening in December.

* Doctor Sherman's paper will be printed in the December number of the *Journal.*

TRI-COUNTY SOCIETY.

The Tri-County Medical Society of California met in this city on Wednesday evening. Dr. Saxton Pope, the secretary of the society, arrived on the afternoon train and Dr. F. H. Patterson of San Juan, Dr. R. W. O'Bannon of Hollister and Dr. Deckleman of Monterey, representing the members, were on hand in the evening. Drs. D. L. Deal, W. V. Grimes and G. S. Trimmer were present as visitors.

Dr. Patterson acted as chairman pro tem. After the discussion of several topics of interest to the society the applications of Doctors Grimes, Deal and Trimmer for membership were received.

Dr. Pope read a very interesttng, instructive paper upon the subject, "Mosquitoes from a Medical Standpoint." The value of the paper was very materially increased by the splendid enlarged illustrations, which also represented Dr. Pope's artistic skill.—*Pacific Grove Review.*

THE MASTOID OPERATION.

(*Continued from Page 17.*)

5. Treatment of Chronic Otorrhea, Frank Allport, Journal of A. M. A., March 2, 1901, page 543.

6. The Radical Cure for Chronic Suppurative Otitis Media, L. S. Cline, Indiana Medical Journal, June, 1901, page 451.

7. Clinical Memoranda on Chronic Suppurative Otitis Media, John F. Oaks, Philadelphia Medical Journal, March 24, 1900, page 685.

8. American Medicine, February 8, 1902, page 247.

9. Heine, Journal of A. M. A., October 13, 1900, page 98.

10. Mastoiditis, T D. Tuttle, Denver Medical Times, January, 1901.

11. J. A. Stucky, American Medicine, June 15, 1901, page 516.

12. Bacteriological Examination of Otitis Media Purulent and Suppurative Mastoiditis, Talbot R. Chambers, Journal A. M. A., December 1, 1900.

13. Journal American Medical Association, July 21, 1900, page 194.

14. American Medicine, April 20, 1901, page 128.

15. Charles N. Richardson, Journal A. M. A., February 23, 1901.

LOS ANGELES' HEALTH OFFICER ON TRANSMISSIBLE DISEASES.

MEMBERS of the Los Angeles County Medical Association were treated to timely remarks at the regular bi-weekly meeting held last night, in a paper read by Dr. Sumner J. Quint, assistant health officer, on a "Review of Some of the Transmissible Diseases." The physicians of Los Angeles were criticised for their carelessness in withholding information concerning infectious diseases from the health office. The dangers that lurk in the uncooked vegetables, such as lettuce, cabbage and radishes, were emphasized, while the menace to the general health in the expectorations of consumptives was brought out in the paper. Dr. Quint said in part:

"The great advance of late years in sanitary regulations has largely reduced the number of mortality of contagious diseases and nearly stamped out some of them entirely. Typhus fever at present is hardly known, and General Wood has nearly or entirely abolished yellow fever in Cuba. By strict quarantine regulations in San Francisco the bubonic plague has been kept within bounds.

"Since the government has instituted a thorough system of meat inspection throughout the country, and the different States, counties and cities have instituted a systematic inspection of milk, fruit and vegetables, with the proper disposal of sewerage, the channels of infection have been reduced to the minimum.

"There still remains great opportunities for improvement in this direction when we see our fruit markets exposed to the dust of our streets and trampled over by infected flies. Also in the handling of lettuce, celery and the uncooked vegetables.

"All this, with the improved method of treatment and prophylaxis, as vaccination, anti-toxin and serum therapy in general, has helped the practitioner to combat these diseases when they arise and gives us a very bright prospect of either annihilation of most of the transmissible diseases, or at least greatly reducing their mortality. Within the last few years the mortality from these diseases has been reduced from ten to fifty per cent in spite of the fact that there are still among us a few antiquated fossils who do not believe in these measures and the timid young practitioner who is afraid to act, not to mention osteopathy, Christian science, mental healers and the like. Some of our very best physicians wait for a report from the health department before injecting their diphtheria patients, and thereby lose twenty-four hours of the most precious time, which often means death to the poor little patient struggling for breath.

"We have in this city a death rate from diphtheria ranging between ten and fifteen per cent. A very large number of these deaths are due to the late use of anti-toxin or to the non-use by the unbeliever. It is the custom in some Eastern cities to prosecute such negligence, and an advance in that direction in our city would be advantageous.

"The general opinion is that tuberculosis is transmitted through the respiratory tract by inhaling, mixed with dust, the sputum of patients suffering from pulmonary tuberculosis. Our salubrious climate attracts many of these unfortunates to this Coast, and with our well-founded notions of the transmission of the disease, patients should be instructed on this clause of the sanitary law; i. e., that they must not expectorate in the street, but that the sputum must be destroyed either by cremation or antiseptics.

"There is no class of invalids that show as much carelessness as the consumptive. He expectorates on our streets, in our parks, and infects the lodging-houses from the most fashionable hotel to the 25-cent rooming-house.

"The majority of the practitioners of this city pay no attention to our sanitary law in this regard, which reads as follows: 'Every physician shall report to the Health Officer every patient he may have, within the city limits, afflicted with Asiatic cholera, typhus fever, yellow fever, smallpox, scarlet fever, diphtheria, or so-called membraneous croup, typhoid fever, glanders, leprosy, tuberculosis and chicken-pox.'

"The Board of Health has volunteered to have the quarantine officer fumigate those houses infested by these tuberculous patients, and we are very willing and glad at all times to coöperate with physicians in the endeavor to prevent the extension of tuberculosis without in any way incurring the displeasure of the patient.

"As an illustration of the manner in which our physicians report these cases: Since January 1, 1902, there have been 342 deaths of tuberculosis, with only twenty-one cases reported to the health department by fourteen physicians, and who shall number those living afflicted with this disease, and not reported in any way while under treatment with physicians, to say nothing of those who go about without medical care?

"As the specific micro-organism is contained in the discharges from the bowels and kidneys of typhoid patients, it is manifest that the dejecta coming in contact with articles of food or drink, will contaminate them, and thereby convey the disease. The most common method of spread of enteric fever is through water, the soil, milk and green vegetables, such as lettuce, celery and radishes.

"In May of this year a Los Angeles physician attended a case of typhoid fever at a neighboring dairy. The records of the health department do not show that the case was reported. By this criminal carelessness on the part of the physician, the milk became infected, and fifteen cases of typhoid

occurred among the consumers of milk from this one dairy, and the most deplorable part of the negligence was that three deaths occurred.

"The tearing up of an old sewer at one of the principal hospitals of this city probably caused an outbreak in that institution which resulted in the loss of several lives.

"Great care should be exercised both by the laity and the physician in using every precaution possible to prevent the spread of this dread disease.

"Beneficial results may be obtained by careful investigation of drinking water (boiling when necessary,) and making sure of the source of our provisions; especially that part of our menu which goes on our table uncooked. These simple precautions will tend to greatly lessen the sporadic cases that occur.

"As typhoid fever is purely an infectious disease, the sources of transmission should not be overlooked in any particular. All articles of the patient's clothing which are soiled, such as sheet, napkins and towels used by the patient should be boiled thoroughly to destroy all germs. Rubber sheets should be used to protect the bedding from dejecta. The excretion should be destroyed at once by strong disinfectants, as bi-chloride of mercury and chloride of lime.

"I wish to state that the object of this paper is simply intended as a most friendly criticism on the local medical profession in the way they observe or fail to observe, the sanitary laws which the health department is trying to uphold in order that this line of disease may be limited as much as possible." —Los Angeles Times.

BUBONIC PLAGUE IN CALIFORNIA.

History of the Outbreak and Resolutions Passed at the Conference of State and Provincial Boards of Health of North America, Held at New Haven, Conn., October 29, 1902.

[Specially reported for *American Medicine*.]

AT the meeting of the State and Provincial Boards of Health of North America, held at New Haven, Conn., October 29, 1902, the following history of the outbreak of bubonic plague in California was recited, and the appended resolutions were passed. The preamble and resolutions were presented by the delegates from Maine, and their adoption was moved by the delegates representing the State of Maryland, seconded by the delegates from Pennsylvania and Connecticut. Seventeen States were represented and voting, and in addition the United States Army, Navy and Marine-Hospital Service and Canada were represented, their representatives, however, not voting. The text of the preamble and resolutions is as follows:

WHEREAS, Bubonic plague has been present in California since March, 1900, information as to the extent of the disease being withheld by the local authorities, no effective measures of restriction having been put into operation, and the history of the outbreak, so far as we can ascertain from authoritative sources, being as follows:

March 6, 1900, a case of bubonic plague was discovered by Dr. W. H. Kellogg, bacteriologist to the San Francisco Board of Health, the diagnosis being confirmed by Surgeon J. J. Kinyoun, of the United States Marine-Hospital Service.

March 7, the City Board of Health of San Francisco quarantined the whole of Chinatown, pending investigation, the quarantine being removed 60 hours later by order of the Mayor.

March 11, another death from plague occurred.

March 12, the City Board of Health, being without funds, attempted an inspection of Chinatown by volunteer inspectors, the Chinese being thereby incited to conceal all cases of sickness.

March 19, two more deaths from plague. The Mayor provided $1,000 for inspection and disinfection. The death rate for Chinatown subsequently dropped so far below earlier experience as to suggest successful concealment or suppression of the facts concerning death as well as sickness.

April 4, and May 2 and 13, other cases of plague discovered.

May 15, a case of plague discovered. Demands were made of the City Board of Health and the United States Marine-Hospital Service to suppress the facts. The Surgeon-General of the United States Marine-Hospital Service wired advice to make house-to-house inspection in Chinatown, to disinfect Chinatown, to establish a pesthouse and house of observation, distruction of rats, and the employment of Hafkine's antipest inoculation.

May 17, State border inspection begun by the United States Marine-Hospital Service. Transportation companies ordered not to furnish transportation to Chinese and Japanese except upon certificate of Marine-Hospital officer.

May 18, commercial associations urged the adoption of the Surgeon-General's suggestion, particularly as to the use of Hafkine's inoculation. City Board of Health willing to undertake this work. The City Board of Health officially announced the presence of bubonic plague and called upon the State Board of Health for aid.

May 19, house-to-house inspection begun. Chinese resist. Chinese and Japanese begin to leave the city. No effective restrictions. State Board

of Health met in conference with City Board of Health and United States quarantine officer. State Board of Health promises to coöperate.

May 20, public meeting of the State Board of Health and the City Board of Health and representatives of railroads and mercantile bodies. Railroads and mercantile bodies demand quarantine of the whole of Chinatown. State Board of Health announces that unless this is done the remainder of the State will quarantine against San Francisco. Chinatown accordingly quarantined. House-to-house inspection continued.

May 21, Surgeon-General of the United States Marine-Hospital Service took charge of quarantine measures in and around California. Quarantine effective. Chinese and Japanese population rendered stationary within 12 hours. Gov. Henry T. Gage made a report on plague to U. S. Secretary of State Hay.

May 22, the State Board of Health notified the State Boards of Health of other States of the existence of bubonic plague in San Francisco, and described the measures taken to restrict its spread.

May 24, the Chinese companies applied for an injunction against the City Board of Health and United States quarantine officer. Bribe of $40,000 offered by Chinese Six Companies to the United States Marine-Hospital officer if the facts were suppressed.

May 28, courts granted injunction prayed for by the Chinese. Quarantine abandoned.

May 29, case of bubonic plague discovered. Inspection of Chinatown suspended, but resumed by order of the Surgeon-General of the United States Marine-Hospital Service.

June 2, case of bubonic plague discovered.

June 3, the State Board of Health of California passed a resolution thanking United States quarantine officer for coöperation and assistance, stating that for want of funds inspection could not be continued, and that the whole matter was referred to the Governor, H. T. Gage.

June 9, case of bubonic plague discovered. The State Board of Health, A. M. Henderson, acting secretary, reported to other State Boards of Health the number of cases of bubonic plague to that date. Dr. Henderson removed from the State Board of Health. Dr. Haddon appointed to fill the vacancy. Dr. Winslow Anderson appointed to fill the place of Dr. Bazet, whose resignation had also been obtained. Merchants and citizens raised $29,000 to aid the City Board of Health in cleaning up Chinatown. United States Court enjoined local board from molesting Chinese. Attorneys of the Chinese brought a suit of habeas corpus upon the affidavit of a Chinaman that he had not plague, had not been near plague, was prevented from working and was hungry. Chinaman was released. Quarantine dissolved.

June 16, contributions of Citizens' Relief Committee stopped. Writ issued by Court ordering Surgeon J. J. Kinyoun, United States Marine-Hospital Service, to appear before Judge Morrow on a charge of contempt. Kinyoun cleared.

June 17, Gov. Gage, with the delegates to the National Convention and the State Central Committee of his political party, appealed to the President of the United States to stop the quarantine proceedings.

June 18, quarantine ordered suspended; 3,000 Chinese and Japanese left for various parts of the State.

June 25, proposition made by the United States Marine-Hospital Surgeon Kinyoun to employ a special commission of experts from outside California to investigate the question of the presence or absence of plague. Proposition not entertained.

July 6 and August 11, cases of bubonic plague discovered.

August 15, case of bubonic plague discovered. Dr. Rytkogel, bacteriologist to the State Board of Health, dismissed. He reported positive evidence of bubonic plague. Dr. Ryfkogel had received no salary or pay. A bacteriologist appointed to replace Dr. Ryfkogel declared that the cause of death in the first case investigated by him was due to the bacillus of hemorrhagic septicemia, familiarly known as fowl cholera. In his second case he identified the plague bacillus and so reported. He was thereupon discharged, and another bacteriologist was appointed who maintained consistently the diagnosis of fowl cholera in other subsequent cases.

October 5 and 10, cases of bubonic plague discovered.

October 12, Secretary of the State Board of Health, Dr. W. P. Mathews, wrote to Health Officer Blunt, Austin, Texas, advising him that no "suspected case" had been reported to him within 60 days. The case of October 10 had been reported to Dr. Mathews by Dr. Williamson.

October 14 and 31, and November 1, cases of bubonic plague discovered.

November 3, case of bubonic plague discovered. United States quarantine officer asked that an inspector be sent to San Francisco.

December 7, case of bubonic plague discovered. Surgeon J. H. White, of the United States Marine-Hospital Service, sent to San Francisco. Reported to Surgeon-General presence of plague.

January 6, case of bubonic plague discovered.

January 7, Legislature of California meets. A great part of the Governor's message devoted to the plague question. The Secretary of the State Board of Health drafted a bill making it a felony to print or publish or to make in writing a report of plague or cholera before the public announcement had been made by the State Board of Health. A joint resolution was introduced calling upon the President of the United States to remove United States quarantine officer Kinyoun from the Pacific Coast.

January 15, two cases of plague discovered. Surgeon White, United States Marine-Hospital Service, recommended the appointment of a Federal Commission of experts. Drs. L. F. Barker, Simon Flexner, and F. G. Novy appointed.

January 24, the joint resolution asking for the

removal of Surgeon Kinyoun passed the State Senate, but failed in the lower house.

January 28, the Federal Commission arrived in San Francisco. Rooms for the work of the Commission offered by the Medical Department of the University of California. Before the work was fairly started the president of the university requested the Commission to vacate in 24 hours, as their presence in the university building endangered the State appropriations. Quarters for the Commission were furnished by Mayor Phelan in the City Hall. Gov. H. T. Gage sent a telegram to President McKinley complaining that an undesired commission had been sent to investigate the health affairs of California, "ignoring the State authorities, and proceeding in the line with reports heretofore made" by Surgeon Kinyoun. Gov. Gage hoped that the discourtesy is not intentional. Gov. Gage also suggested that the Federal Commission be advised to coöperate with the State authorities and with home physicians and bacteriologists.

January 30, Hon. Lyman J. Gage, Secretary of the Treasury, replied to Gov. Gage, declaring the independence of the Federal Commission, disclaiming the intent of the Treasury Department to be discourteous.

January 31, Gov. Gage sent a message to the State Legislature, representing that the United States Treasury Department had sent a "commission of experts to make an *ex-parte* investigation" to be "conducted in secret," "the State being denied a hearing," imperiling "the welfare of every citizen and inhabitant of the State." He asked legislation by which the State might assume "general and unrestrained control over the subject of public health within its borders."

February 5, 6, 7, 10, 12, 14, cases of bubonic plague discovered.

February 17, Gov. Gage sent a telegram to President McKinley complaining that the Federal Commission had not given him an opportunity to meet them from January 28 until February 16, at which time the work of the Commission was done and the report about ready for transmission. A copy of a letter to the Governor sent by the Commission on January 20 is found on page 25 of the Report of the Governor's Special Committee. The Governor informed the Federal Commission that this letter was never received. On page 26 of the same pamphlet is a copy of the Governor's reply to the Federal Commission. This reply, the Commission says, was not received. Gov. Gage asked for a reinvestigation by a commission to include three Federal appointees, three State appointees, and one to be chosen by these six.

February 19, Secretary of the Treasury Gage declined to join in a reinvestigation.

February 25—March 1, Gov. Gage promised to coöperate fully and heartily with the Federal authorities and appoint five distinguished citizens to visit Washington for the purpose of consultation.

March 1, report of the special commisston handed to Gov. Gage by order of the Surgeon-General.

March 10, the committee from the State of California in a signed letter to the Secretary of the Treasury accepted the recommendations of the Surgeon-General, and "agree that the same shall be promptly and efficiently carried out by the health officers of the State of California and the City Board of Health of San Francisco, and——accept——the advice and coöperation of Dr. J. H. White, United States Marine-Hospital Service."

April 1, case of bubonic plague discovered.

April 4, Surgeon Kinyoun removed from San Francisco. The special committee, with the State Board of Health, began to arrange for the cleansing of Chinatown. In about three weeks the cleansing was begun. Texas threatened quarantine. Surgeon White's advice and recommendations ignored. No cases of plague discovered. The rates for sickness and death far below normal. The Surgeon-General was informed by Surgeon White that he believed that sickness and death were concealed by the collusion of the State health authorities with the Chinese Six Companies. The notification arrangement, according to the Sacramento *Bee*, was as follows: Cases of sickness among the Orientals to be reported first to the Six Companies, by the companies to the State Inspector, and by the State official to the City Board of Health and the United States Marine-Hospital Service.

May 18, Surgeon White reports to Gov. Gage the evidence of concealment of plague with the evidence of infection in other parts of the State and suggests a "quiet" investigation of places outside San Francisco.

May 28, Gov. Gage wired Surgeon White notifying him that no officer of the Federal Government had been requested to "participate in an examination, etc., outside the city and county of San Francisco. Your mere suspicion from the improved health of the Chinese district that the sick are being removed from San Francisco is not only unwarranted as a conclusion, but I know it to be unfounded in fact," Gov. Gage offered to send "someone suitably qualified professionally to look over the matter" with Dr. White, but did not send any such person, nor was any investigation made outside San Francisco.

June 7, the State Board of Health of California suggested to Dr. J. H. White that the United States Marine-Hospital Service would certify to the health authorities that there is no longer any danger of plague. Surgeon White declined to do this, and made a definite proposition to both the State Board of Health of California and the Governor, providing for the completion of the disinfection of Chinatown and the continued inspection of sickness and investigation of deaths by the United States Marine-Hospital officers.

June 8, disinfection of Chinatown suspended by order of State Board of Health.

June 10, Surgeon White re-called to Washington.

June 18-24, the Surgeon-General and Gov. Gage exchange "congratulations that no cases have been found during the progress of this work, and that the outlook is so encouraging."

July 2, a Chinese undertaker mistaking Dr. Blue,

of the United States Marine-Hospital Service, for a State health official reported the case of a moribund Chinaman. Dr. Blue and other investigators made a diagnosis of plague in this case. The State officials disputed the diagnosis and ascribed the death to syphilis. Next, 3 Japanese women were found ill with plague; 2 died and 1 recovered. The 2 deaths were charged by the State officials to sewer gas.

August 31, September 1, 11, 16, cases of bubonic plague discovered.

September 16, Gov. Gage's special committee published its report, which concludes: "San Francisco is and has been absolutely free from the disease, and those who said it existed were either mistaken or deliberately misrepresented the facts." To this is appended a report of the State Board of Health, signed by W. P. Mathews, secretary, which concludes: "We take great pleasure in assuring you that plague does not exist in San Francisco, and that it has never had lodgment there nor elsewhere in California."

September 27, two cases, and October 10, 19, 22, 30, single cases of plague discovered.

October 30, E. E. Schmitz, newly-elected Mayor of San Francisco, addressed a letter to Drs. Williamson, Baum, Buckley and Leavitt, composing City Board of Health, removing them from office, appointing in their stead Drs. J. Coplin-Stinson, A. S. Adler, T. A. Rottanzi and M. E. Van Meter. The Mayor was enjoined by the City Board of Health, and the old board still remains in office. Funds are not furnished. From this time scanty information is obtainable, no published communications between the United States Marine-Hospital Service being available, and those who conspired to suppress the facts being in complete command of the situation.

November 4 and December 12, 1901, and February 22, April 20, May 19, 28, 29, July 13, 18, 19, 20, 21, August 7, 17, 19, 20, 22, 23, 25, 26, 31, cases of bubonic plague discovered.

August 31, $1,000 appropriated to disinfect premises and to kill rats.

September 9, 11, 16, (2), 20, 23, (2), 26 (2), October 5 (3), 8, 11, 16, 17, cases of bubonic plague discovered.

Total cases reported to October 17, 88.

And Whereas, Thirty of these cases have occurred since July 13, 1902, no information as to their origin or exact location having been furnished, no effective steps having been taken to restrict the spread of the disease, the City Board of Health of San Francisco being helpless, and the *mala fides* of the State Board of Health of California having been fully established by the foregoing history, supported by documentary evidence in the possession of this Conference; therefore

Be it Resolved, That the Conference of State and Provincial Boards of Health of North America views with abhorrence the irretrievable disgrace of the State Board of Health of California, and pronounces the plague situation in Califorcia a matter of grave national concern; and

Be it further Resolved, That the National Conference of State and Provincial Boards of Health of North America does hereby advise the various State Boards of Health of the United States to consider the propriety of calling upon the Surgeon-General of the United States Public Health and Marine-Hospital Service to arrange at the earliest possible date a joint conference for the purpose of eradicating plague from the United States.—*American Medicine.*

SAN FRANCISCO VITAL STATISTICS.

Ed. M. Coffey, statistician for the Department of Health, reports for the month of October as follows:

The total number of deaths recorded in this city during October was 606, equal to a death rate of 20.19 on the 1000 per annum, as against 566 for October, 1901, when the rate was 18.86. Births recorded last month numbered 500, equal to a rate of 16.65, the same nnmber being registered in October, 1901.

The deaths recorded were distributed as follows: By sex—348 males, 258 females. By race—554 Caucasians, 37 Mongolians, 7 Japanese, 8 Africans. By nativities—Pacific Coast States 203, other States 110, foreign 280, and 13 were unascertained; 84 were under 1 year of age, 27 were between the ages of 1 and 5 years, 251 were between 5 and 50 years, and 244 were 50 and past; 289 were single, 196 married, 95 widowed, 13 divorced and 13 unascertained; 58 died in the City and County Hospital, 20 in the Almshouse, 14 in the Emergency Hospital, and 144 died in various other hospitals and sanitariums, leaving 370 deaths to be distributed throughout the city at large.

Principal causes of death were: Diphtheria 23, scarlet fever 1, typhoid fever 10, cholera infantum 6, cancer (all varieties) 37, pulmonary tuberculosis 64, other forms 9, senility (old age) 22, alcoholism 9, apoplexy 13, diseases of brain 18, of heart 70, respiratory system (including pneumonia, etc.) 52, of digestive system 59, Bright's disease 28. Accidental deaths—Asphyxia by gas 8, by falls, etc., 13, other causes 11; total 52. Homicides 3. Suicides—By firearms 8, hanging 1, by gas 1, by carbolic acid 5, other poisons 2; total 17.

The Southern Oregon Medical Association held its semi-annual meeting at Grants Pass, Oregon, on the 11th inst. Heretofore the association has held annual meetings only, meeting in May. Hereafter, meetings are to be held semi-annually, in May and November. A very pleasant and profitable meeting is reported by the attending physicians and a banquet was given at Hotel Josephine in the evening.—*Grants Pass Courier.*

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

F. B. CARPENTER, President, 590 Sutter St., San Francisco.

GEORGE H. EVANS, Secretary, 807 Sutter St., San Francisco.

ELMER E. KELLY, Treasurer. 771 Sutter st., San Francisco.

COMMITTEES FOR 1902-1903.

(First named being chairman.)

ORATION IN MEDICINE .....WM. WATT KERR, San Francisco
ORATION IN SURGERY.....GRANVILLE MacGOWAN, Los Angeles

ARRANGEMENTS.

PHILIP KING BROWN, San Francisco; C. M. RICHTER, San Francisco; W. LE MOYNE WILLS, Los Angeles; GEO. COLE, Los Angeles; WALTER LINDLEY, Los Angeles.

AUXILIARY COMMITTEE OF ARRANGEMENTS.

W. H. FLINT, Santa Barbara; C. E. VAUGHAN, Santa Barbara; C. S. STODDARD, Santa Barbara; R. F. WINCHESTER, Santa Barbara; W. B. CUNNANS, Santa Barbara.

PUBLICATION.

PHILIP MILLS JONES, San Francisco; GEORGE H. EVANS, San Francisco; HENRY GIBBONS, JR., San Francisco; DUDLEY TAIT, San Francisco; CHAS. D. MCGETTIGAN, San Francisco.

AUDITING.

C. G. KENYON, San Francisco; E. L. WEMPLE, San Francisco; E. G. FRISBIE, San Francisco.

MEMORIAL.

G. W. DAVIS, San Francisco; ROBERT F. ROONEY, Auburn; CHAS. G. LEVISON, San Francisco.

MEDICINE AND THERAPEUTICS.

NORMAN BRIDGE, Los Angeles; SAMUEL H. BUTEAU, Oakland; WM. FITCH CHENEY, San Francisco; A. M. GARDNER, Belmont; W. J. G. DAWSON, St. Helena.

SURGERY AND ANATOMY.

STANLEY STILLMAN, San Francisco; JULIUS ROSENSTIRN, San Francisco; W. LE MOYNE WILLS, Los Angeles; G. A. WHITE, Sacramento; D. D. CROWLEY, Oakland.

OBSTETRICS.

D. A. HODGHEAD, San Francisco; EDWARD N. EWER, Oakland; GEO. L. COLE, Los Angeles; GEO. A. HARE, Fresno; W. N. SHERMAN, Merced.

GYNECOLOGY.

B. MCMONAGLE, San Francisco; WALTER LINDLEY, Los Angeles; E. E. KELLY, San Francisco; A. LILIENCRANTZ, Oakland; W. A. BRIGGS, Sacramento.

PEDIATRICS.

GEORGE H. EVANS, San Francisco; W. A. EDWARDS, Coronado; C. W. NUTTING, Etna Mills; FRED G. BURROWS, San Francisco; E. W. TWITCHELL, Sacramento.

EYE.

H. BERT ELLIS, Los Angeles; VARD H. HULEN, San Francisco; J. A. BLACK, San Francisco; GEO. C. PARDEE, Oakland; B. J. POWELL, Stockton.

EAR, NOSE AND THROAT.

H. L. WAGNER, San Francisco; W. F. SOUTHARD, San Francisco; WM. ELLERY BRIGGS, Sacramento; DENNIS J. ARNOLD, San Francisco; W. S. FOWLER, Bakersfield.

GENITO-URINARY.

LOUIS BAZET, San Francisco; R. L. RIGDON, San Francisco; JNO. C. SPENCER, San Francisco; A. P. WOODWARD, San Francisco; M. KROTOSZYNER, San Francisco.

CUTANEOUS DISEASES.

D. W. MONTGOMERY, San Francisco; HOWARD MORROW, San Francisco; MARTIN REGENSBURGER, San Francisco.

NERVOUS AND MENTAL.

H. G. BRAINERD, Los Angeles; A. E. OSBORNE, Santa Clara; H. E. SANDERSON, Stockton; A. W. HAISHOLT, Stockton; LEO NEWMARK, San Francisco.

HYGIENE, SANITATION AND CLIMATOLOGY.

P. K. BROWN, San Francisco; H. A. L. RYFKOGEL, San Francisco; JNO. M. WILLIAMSON, San Francisco; MARY E. RITTER, Berkeley; M. GARDNER, San Francisco.

PATHOLOGY AND BACTERIOLOGY.

WM. OPHÜLS, San Francisco; STANLEY P. BLACK, Los Angeles; MAURICE W. BROWN, Alameda; HERBERT MOFFATT, San Francisco; G. E. EBRIGHT, San Francisco.

CHEMISTRY AND PHYSIOLOGY.

RAY L. WILBUR, Stanford University; CARL R. KRONE, Oakland.

MEDICAL LEGISLATION AND EDUCATION.

HENRY GIBBONS, JR., San Francisco; W. S. THORNE, San Francisco; JAS. H. PARKINSON, Sacramento.

SCIENTIFIC PROGRAM.

J. HENRY BARBAT, San Francisco; P. M. JONES, San Francisco; DUDLEY TAIT, San Francisco; W. F. B. WAKEFIELD, Oakland; WALLACE I. TERRY, San Francisco.

NOTICE TO ALL MEMBERS

Under Art. VI, Sec. 6, of the new Constitution and By-Laws, all members intending to present papers at the next meeting of the State Society, April, 1903, MUST send their papers to the Chairman of the Committee on Scientific Program ONE MONTH BEFORE THE DATE OF THE MEETING. The papers must be examined by this committee and abstracted for the program, which program must be made up at least fifteen days before the meeting. At the last meeting of the Society it was voted to strictly adhere to this requirement, so that if your paper is not sent in by the fifteenth of March, it can not be presented to the State Society at the meeting in April.

SEND YOUR PAPERS TO DR. J. HENRY BARBAT, Chairman, 590 Sutter Street, San Francisco.

MINUTES OF THE PROCEEDINGS

OF THE

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

AT ITS THIRTY-SECOND ANNUAL SESSION

HELD IN

GOLDEN GATE HALL, 625 SUTTER STREET, SAN FRANCISCO, CALIFORNIA, APRIL, 1902.

The meeting was called to order by the president, William J. G. Dawson of St. Helena, on Tuesday morning, April 15, 1902, at 10:30 A. M., and was opened with a prayer by Rev. Wm. C. Pond, D. D.

Wm. Fitch Cheney, Chairman of the Committee on Arrangements, delivered the address of welcome, and it was moved, seconded and carried that the address be referred to the Committee on Publication.

ADDRESS.

Mr. President, Members of the Medical Society of the State of California, Ladies and Gentlemen:

Numerous times before this our Society has met in San Francisco, but never before has it found here such a condition of prosperity as exists now. We are in the midst of a great business revival; new buildings are everywhere being erected; new enterprises are on all sides springing into life; vigor and energy are in the air; and in welcoming you at this time, it is with the hope that our proceedings may be characterized by the spirit of the day.

As individuals, physicians are as a rule men of the best education, progressive, wideawake, energetic. Yet there are many things for us to do that we can never do as individuals. Organization is required before we can make our influence most widely felt. Hence the existence of this Society. But it is a matter for deep regret that so few in the ranks of regular medicine are found within this organization

Next to business questions comes the scientific side of our meeting. It is undoubtedly good for us to meet together and exchange views. No man knows it all. Each one is able to learn something from his neighbor. In the rush of actual work with our patients during the year, we have no time to talk over cases with each other and so to find out how the other man does his work. It is only by such meetings as this that opportunity is afforded for mutual exchange of experiences in our profession. We who belong to this Society and attend its meetings, feel that we are helped by them to increased usefulness But still more helpfulness will come to us from wider interchange of opinions; and some way must be devised to bring about an increased membership in our Society, an increased attendance at these meetings and an increased interest in the subjects we meet to discuss.

There is still another reason for these meetings, and that is the acquaintance and good fellowship to be promoted by them amongst the members of our profession. There will be more harmony among us, more tendency to assume that each of us is honestly doing his best, more willingness to believe that every physician is competent and upright, in direct proportion as we know each other better. Too many times we criticize the other man, we speak slightingly of his work, we assume that he has not acted wisely —simply because we do not know him personally and have not learned by face to face talk with him that his preparation for his work, that his aims, his ambitions, his ideals, are the same as our own. These meetings afford the opportunity for such personal acquaintance and lay the foundation for such mutual respect.

I may be too enthusiastic, but I have the utmost faith in the good that is to come to us as medical men from organization, from exchange of knowledge, from personal acquaintance with each other, such as these meetings afford. And with these thoughts in mind, with all the vigor that the times inspire, and with all the heartiness that the present prosperity prompts, I bid you welcome to this meeting. May it be characterized by the progressiveness and the energy that now dominates the people of this, the metropolis not only of California and of the Pacific Coast, but of the western half of this great country.

The annual address was delivered by the president, William J. G. Dawson, of St. Helena. It was moved by Dr. Davis, seconded and carried, that a vote of thanks be tendered to the president for his able address, and that it be referred to the Executive Committee.

It was moved by Philip Mills Jones, seconded and carried, that the report of the Committee on the Revision of the Constitution and By-Laws be read by title in the afternoon, and that it be brought up on Thursday morning, April 17, as a special order of business, to be discussed in full.

The minutes of the morning session were then read and approved, and the meeting adjourned at 11:15 A. M. to meet again at 2 P. M.

Afternoon Session, Tuesday, April 15, 1902.

The meeting was called to order at 2:15 P. M. by the President. Dudley Tait and H. B. A. Kugeler were appointed on the Board of Censors, and Philip Mills Jones and Philip King Brown on the Executive Committee, pro tem.

The report of the special committee on the revision of Constitution and By-Laws was read by the chairman, C. G. Kenyon. It was moved, seconded and carried, that the report of the committee on revision of Constitution and By-Laws be received and referred to the Executive Committee, to be considered Thursday morning, special order of business.

The Board of Censors reported favorably on the following fifty-six names of applicants for membership: O. D. Hamlin, D. Stapler, J. H. Hawkins, W. G. Beattie, F. P. Canac-Marquis, P. K. Watters, A. Schloss, F. Zelinsky, F. O. Chamberlain, R. T. Stratton, G. H. Liliencrantz, M. B. Ritter, H. G. Thomas, W. J. Barlow, A. H. Tickell, J. L. Bond, I. E. Cohn, F. W. Harris, G. L. Sanders, G. Brady, A. D. McLean, T. J. Clark, Shingo Hashimoto, C. M. Cooper, A. A. O'Neill, L. P. Dorais, H. C. Mills, E. W. King, R. M. Higgins, T. F. Brennan, J. L. McLaren, J. T. Watkins, C. F. Millar, H. G. Brainerd, H. G. Burton, F. F. Neff, W. W. Beckett, Norman Bridge, S. P. Black, H. E. Southworth, J. D. Hill, C. S. Downes, F. W. Morse, F. G. Burrows, C. M. Tinsman, A. M. Winegar, T. D. Ross, E. von Adelung, H. C. Whiting, J. W. Key, H. L. Parish, A. M. Loper, O. Stansbury, T. C. Edwards, L. L. Meininger, G. C. MacDonald.

Moved, seconded and carried that the report be received and the secretary cast the ballot of the Society for the entire number, which having been done, they were declared elected by the president.

Report of the Committee on Clinical Medicine and Therapeutics, Geo. A. Hare of Fresno, chairman, who read a paper entitled "Hydrotherapy, a Sbort Sketch of the History of its Development, a Brief Discussion of its Physiological Therapeutics and a Report of Some Experimental Work." The paper was referred to the Committee on Publication.

The discussion was opened by Geo. L. Cole of Los Angeles.

Moved, seconded and carried that the discussion on the papers of Hydrotherapy be laid over until all the papers on the subject were read.

F. L. Adams of Oakland read a papèr, "Hydrotherapy in Typhoid Fever." This paper was referred to the Committee on Publication.

A. J. Sanderson of San Francisco read a paper, "Hydrotherapy in Pneumonia." This paper was referred to the Committee on Publication.

These papers were discussed by H. N. Rucker of Oakland.

Philip King Brown of San Francisco read a paper entitled "Lobar Pneumonia, Followed by Pneumonococcus Infection of the Right Antrum, Lachrymal Duct, and a Psuedo-Membranous Affection of the Throat, and Six Days Later by a Typical Diphtheria." This paper was referred to the Committe on Publication.

George A. Hare of Fresno offered the following resolution: "Resolved, Tbat we are in favor of introducing into the Medical Schools of the United States the practical teaching of Hydrotherapy." This resolution was referred to the Executive Committee.

Alfred Eichler read a paper entitled "The Etiology and Diagnosis of Appendicitis," which was referred to the Committee on Publication.

C. F. Griffin of San Francisco read a paper entitled "X-Ray Tube Vacua, Commercial Notation of," which was referred to the Committee on Publication.

The President appointed A. J. Sanderson as Assistant Secretary; also H. Bert Ellis on the Executive Committee, vice P. K. Brown, resigned.

The Board of Censors made a report and recommended the following six names for membership: W. B. Sawyer, A. B. Grosse, J. von Werthern, L. P. Adams, A. S. Adler, S. B. Gordon. The Secretary cast the ballot for the entire number, and they were declared elected.

Report of the Committee on Neurology, A. M. Gardner of Belmont, chairman, who read a paper entitled "State Hospital Care and Treatment of the Acute and Convalescing Insane," which was referred to the Committee on Publication, and was discussed by E. W. King, H. N. Rucker and H. G. Brainerd.

Leo Newmark of San Francisco read a paper entitled "Observations on Convulsive Seizures," which was referred to the Committee on Publication.

Minutes were read and approved, and the meeting adjourned at 6 P. M.

Evening Session, Tuesday, April 15, 1902.

The meeting was called to order by the president at 8:15 P. M. Report of the Committee on Ophthalmology, Geo. H. Powers of San Francisco, chairman, who read a paper entitled "Errors of Refraction."

W. A. Martin of San Francisco read a paper entitled "Errors of Refraction as a Cause of Diseases of the Eye."

Rosamond L. Cox of San Francisco read a paper entitled "Errors of Refraction as a Causative Factor in Headaches."

W. S. Fowler of Bakersfield read a paper entitled "Correction of Errors of Refraction." These papers were referred to the Committee on Publication.

The discussion was opened by A. B. McKee of San Francisco, and continued by F. B. Eaton of San Francisco, W. E. Briggs of Sacramento, and K. Pischel of San Francisco, and closed by Geo. H. Powers of San Francisco.

W. F. Southard of San Francisco read a paper entitled "Retinal Anaesthesia," which was referred to the Committee on Publication.

Report of the Committee on Laryngology, Rhinology and Otology, W. F. Southard of San Francisco, chairman.

K. Pischel of San Francisco demonstrated a case of "Frog Face," which was discussed by R. D. Cohn of San Francisco.

W. F. Southard of San Francisco read a paper entitled "The Turbinates, Their Pathology and Treatment." This was discussed by R. W. Payne, K. Pischel, W. A. Martin and J. D. Arnold of San Francisco.

H. L. Wagner's paper entitled "Traumatic Paresis of the Soft Palate," was read by title, and referred to the Committee on Publication; also M. W. Frederick's paper on the "Treatment of Solerosis of the Middle Ear."

W. A. Martin of San Francisco read a paper on "A New Adenoid Curette Forceps with Presentation of Instruments," which was referred to the Committee on Publication.

The minutes of the first evening session were read and approved and the meeting adjourned at 11 P. M.

Second Morning Session, Wednesday, April 16, 1902.

The meeting was called to order at 9:25 A. M. by the President. Report of the Committee on Obstetrics and Pueperal Diseases. H. M. Pond of Alameda, chairman, who read a paper on "Puerperal Eclampsia," and it was referred to the Committee on Publication. The paper was discussed by G. Gross and M. Strunsky of San Francisco, and closed by H. M. Pond of Alameda.

The paper of H. D. Lawhead of Woodland entitled "A Case of Extra-Uterine Pregnancy" was read by title, and referred to the Committee on Publication.

The paper of Chas. D. Ball of Santa Ana on the "Surgical Treatment of Puerperal Fever," was read by title and referred to tbe Committee on Publication.

Adelaide Brown of San Francisco read a paper entitled "A Case of Cesarean Section Necessitated by Ventro Suspension." The paper was referred to the Committee on Publication.

Tbe Board of Censors reported favorably upon the following five names: J. H. McLeod, H. A. Hess, E. R. Sill, C. W. Knowles, C. W. Pierce and recommended them for membership; the Secretary cast the ballot of the Society and they were declared elected by the president.

Report of the Committee on Pediatrics, E. G. Frisbie of San Francisco, chairman. "Symposium on Pott's Disease of the Spine in Children"; Emma S. Merritt of San Francisco, "History of the Disease"; Lucy M. F. Wanzer of San Francisco, "Etiology and Pathology"; E. G. Frisbie of San Francisco, "Symptoms and Diagnosis"; J. H. Tebbetts of Hollister,

"Complications"; S. J. Hunkin of San Francisco, "Treatment."

These papers were referred to the Committee on Publication and were discussed by A. W. Morton of San Francisco, F. L. Adams of Oakland and J. T. Watkins of San Francisco.

The minutes of the second morning session were read and approved, and the meeting adjourned at 11:55 A. M.

Second Afternoon Session, Wednesday, April 16, 1902.

Meeting called to order by the president at 2:10 P. M.

Report of the Committee on Gynecology, Walter Lindley of Los Angeles, chairman, who read a paper entitled "Oophorectomy—Its Effect on the Nervous System," which was referred to the Committee on Publication.

The discussion was opened by C. A. Von Hoffman of San Francisco, and continued by George L. Cole of Los Angeles and W. W. Kerr of San Francisco.

The paper of F. W. Vowinckel on "Fibromyomata of the Uterus," was read by title and referred to the Committee on Publication, after a motion to grant the author one hour's time in which to appear and to read his paper, was lost.

The Secretary read a communication from the San Francisco Department of Public Health, containing a letter from the President of the National Conference, State Boards of Health; also a copy of resolutions adopted at the last meeting of the San Francisco County Medical Society. This communication was referred to the Executive Committee.

A. M. Taylor of San Francisco read a paper on "Treatment of the Uterus and Appendages per Vaginam," which was referred to the Committee on Publication, and was discussed by J. Henry Barbat, Beverly MacMonagle, F. B. Carpenter and J. C. Stinson of San Francisco.

The Board of Censors presented a report and recommended the following thirteen applicants: J. L. Carson, C. J. McChesney, W. K. Lindsay, M. F. McTaggart, W. M. Wightman, J. G. Sharp, A. M. McIntosh, H. G. Wyckoff, R. W. O'Bannon, T. G. Russell, W. J. Bauer, M. L. Loomis, C. H. Roese. The Secretary cast the ballot and they were declared elected by the president.

W. F. B. Wakfield of Oakland, read a paper entitled "Conservatism in Gynecology," which was referred to the Committee on Publication and was discussed by J. Henry Barbat of San Francisco.

Dudley Tait of San Francisco read a paper on the "Technique and Advantages of Bisection of the Uterus by the Abdominal Route," which was referred to the Committee on Publication, and was discussed by J. Henry Barbat, Beverley MacMonagle, A. Miles Taylor and D. Stapler of San Francisco.

J. Henry Barbat read a paper entitled "The Prevention of Post-Operative Adhesions in Pelvic Surgery," which was referred to the Committee on Publication.

The minutes of the session were read and approved. The meeting adjourned at 5 P. M.

Second Evening Session, Wednesday, April 16, 1902.

The meeting was called to order by the President at 8:10 P. M.

Report of the Committee on Surgery and Surgical Anatomy, D. D. Crowley of Oakland, chairman, who read a paper on the "Suture of Tendons and Muscles." This paper was referred to the Committee on Publication, and was discussed by H. M. Sherman, T. W. Huntington, K. Pischel, S. J. Hunkin, G. F. Shields and E. G. Frisbie of San Francisco.

Thomas W. Huntington of San Francisco read a paper entitled "Some Observations Relative to Non-Malignant Pyloric Stenosis, with a Report of Two Cases Treated by the Heineke-Mikulicz Method," which was referred to the Committee on Publication. This paper was discussed by Dudley Tait of San Francisco.

Emmet Rixford of San Francisco read a paper on "Fracture of the Pelvis," which was referred to the Committee on Publication.

Moved by J. Henry Barbat, seconded and carried, that the president be empowered to appoint a committee of five to be called the Nominating Committee, to facilitate the annual election of officers, by presenting a list of nominees. The President appointed the following: Dudley Tait, P. K. Brown, D. A. Hodghead, H. Bert Ellis, and J. Henry Barbat.

A. W. Morton of San Francisco read a paper entitled "Bone Grafting, with the Report of a Case." This paper was referred to the Committee on Publication and was discussed by S. J. Hunkin of San Francisco.

J. Henry Barbat of San Francisco read a paper entitled "Appendicitis, Showing the Difficulties that Sometimes Confuse the Diagnostician, with a Report of Several Cases." This paper was referred to the Committee on Publication, and discussed by Dudley Tait, A. W. Morton and F. B. Carpenter of San Francisco, D. D. Crowley and W. F. B. Wakefield of Oakland and G. A. Hare of Fresno.

Charles G. Levison of San Francisco read a paper entitled "Surgery of the Spleen, with Especial Reference to Banti's Disease and Splenic Anemia; Nature of Banti's Disease; Description of the Blood Findings; Indications for the Removal of the Spleen; Report of a Case of Banti's Disease; Statistics." This paper was referred to the Committee on Publication.

Dudley Tait of San Francisco read a paper on the "Technique of Louget's Operation for Radical Cure of Hydrocele." This paper was referred to the Committee on Publication and discussed by M. Krotoszyner of San Francisco.

Oscar J. Mayer read a paper entitled "Angiotripsy, Replacing the Ligature in Routine Work of General Surgery," which was referred to the Committee on Publication, and was discussed by Dudley Tait, E. M. Paterson, A. W. Morton, J. Henry Barbat and F. B. Carpenter of San Francisco.

The minutes of the second evening session were read and approved and the meeting adjourned at 12 P. M.

Third Morning Session, Thursday, April 17, 1902.

The meeting was called to order at 9:15 A. M. by the President.

Report of the Committee on Dermatology and Genito-Urinary Diseases, J. C. Spencer of San Francisco, chairman, who read a paper on "The Prophylaxis of Venereal Diseases." The discussion was opened by George Chismore of San Francisco and participated in by M. Krotoszyner and D. W. Montgomery of San Francisco.

Special order of business was called. The Executive Committee presented the Report of the Committee on Revision of the Constitution and By-Laws, and on motion of J. H. Parkinson, it was ordered that the report be read and adopted section by section. Philip Mills Jones for the Executive Committee then made their report. (The Constitution and By-Laws, as adopted follow on next page.)

It was moved that a vote of thanks be tendered to the Committee on Revision for the work they had done, which motion was seconded and carried unanimously.

It was moved, seconded and carried, that 3 o'clock be set aside as a special order of business, for the purpose of electing officers for the ensuing year, and transaction of business for this session.

Committee on Revision presented some bills which were referred to the Executive Committee.

The minutes were read and approved. Adjournment 12:15 P. M.

(Minutes of proceedings will be continued in the December JOURNAL.)

CONSTITUTION.

ARTICLE I.

NAME AND OBJECTS.

SECTION 1. The name of this Society sball be the "Medical Society of the State of California."

SEC. 2. The objects of this Society are the organization, protection and defense of the medical profession of tbe State of California, the cultivation and advancement of the science of Medicine, and the promotion of public health.

ARTICLE II.

COMPOSITION.

SECTION 1. The Society shall be composed of members of the regular medical profession of the State of California, of Associate and of Honorary members.

ARTICLE III.

SCIENTIFIC AND LEGISLATIVE BRANCHES.

SECTION 1. This Society shall be divided into a Scientific and a Legislative Branch, the objects and purposes of which shall be such as are provided in the By-Laws.

SEC. 2. The Legislative Branch shall consist of not more than eight delegates, elected by the members at large, and by the county medical societies, which are recognized by this Society, in accordance with the By-Laws directing tbe apportionment of representation.

ARTICLE IV.

MEETINGS.

SECTION 1. The regular meetings of this Society shall be held annually.

SEC. 2. Special meetings of the Legislative Branch may be convened as the By-Laws provide.

SEC. 3. Twenty-five members shall constitute a quorum in the Legislative Branch.

ARTICLE V.

OFFICERS.

SECTION 1. Tbe Officers of this Society shall be a President, a First Vice-President, a Second Vice-President, a Secretary, two assistant Secretaries, a Treasurer, five members of the Board of Medical Examiners, and eleven Trustees, all of whom shall be elected by the Legislative Branch. Of the Trustees, one shall be elected from each of the eight Congressional Districts, and three shall be elected as Trustees-at-Large. Not more than two Trustees shall be elected from any one Congressional District.

(Amended to read as above.)

SEC. 2. Tbe selection of the place of meeting, and the election of officers, shall be the first order of business of the Legislative Branch at the second evening session of each annual meeting.

SEC. 3. All officers shall be elected by ballot, and shall serve until their successors are chosen and qualified.

SEC. 4. No member of the Legislative Branch of this Society shall be eligible to any of the offices mentioned in Section 1 of this Article.

ARTICLE VI.

ETHICS.

SECTION 1. The Code of Ethics of the American Medical Association shall be the Code of Ethics of this Society.

ARTICLE VII.

AMENDMENTS.

SECTION 1. The Legislative Branch shall have authority to amend any Article or Section of this Constitution by a three-fourths affirmative vote of the members present, provided, that such amendment has been submitted in writing at an annual meeting one year previous to being acted upon, and, during the interim officially submitted to each county medical society for consideration. The hour at which such vote is to be taken shall be announced by the presiding officer, at least one day previous to date of final action.

BY-LAWS.

ARTICLE I.

MEMBERSHIP.

SECTION 1. All members of affiliated county medical societies shall, by virtue of such membership, be members of this Society, when duly reported by the President and Secretary of the County Medical Society.

SEC. 2. It shall be the duty of the President and Secretary of each county medical society to furnish the Secretary of this Society with a correct list of its members, at least one week prior to each annual meeting.

SEC. 3. Any regular physician residing in a county in which there is no county medical society in affiliation with this Socity, may make application for membership to the Judicial Council. The Council shall ascertain the qualifications and standing of the applicant, and report to the Legislative Branch at the next annual meeting. If such report be favorable, and adopted by a majority vote of the Legislative Branch, the applicant shall be declared a member of this Society.

SEC. 4. Any one who is a member of the State Society previous to the adoption of this Constitution and By-Laws, but who does not belong to an affiliated County Medical Society, shall be permitted to continue his membership in this Society. Such members, and the members mentioned in the foregoing section, shall pay Three Dollars ($3.00) annually to the Secretary of this Society within thirty days after each annual meeteing.

SEC. 5. Associate members are those who were regular members of this Society for a period of ten consecutive years and have removed from the State of California permanently. Any member of this Society desiring to become an Associate member, may do so by making application through his County Medical Society; if not a member of a county medical society, direct to the Judicial Council, and, when favorably acted upon by said council, he shall be recognized as an Associate member; be shall be privileged to take part in the scientific meetings only, and to receive programs and transactions.

SEC. 6. Honorary members are such distinguished persons as this Society may deem worthy of the compliment, and, after nomination in writing by three members, they may be elected to membership by the Legislative Branch at any regular meeting. Their privileges shall be to take part in the scientific sessions, and to receive programs and transactions.

ARTICLE II.

MEETINGS.

SECTION 1. The annual meetings of this Society sball convene on the third Tuesday in April of each year.

SEC. 2. Special meetings of the Legislative Branch may be called by the President upon the written request of at least twenty-five members of the said Branch, provided that each member of this Branch is notified as to time, place and object of the proposed meeting.

SEC 3. During the annual meeting of this Society, the Scientific Branch shall convene on the first day at 10 a. m., and thereafter each day at 9 a. m. and at 2 p. m. The Legislative Branch shall meet each day at 8 p. m., or at such other time as will not conflict with the sessions of the Scientific Branch.

(Amended to read as above.)

ARTICLE III.

DUTIES OF OFFICERS.

SECTION 1. The President shall preside at the meetings of the Scientific and Legislative Branches. He shall appoint a member to deliver at the next annual meeting an address on "Medicine," and another to deliver an address on "Surgery." He shall appoint all standing committees, and, unless otherwise ordered by a vote of the Legislative Branch, all special committees. He shall have a casting vote when necessary, and preserve order and decorum. On the morning of the first day of the annual meeting following bis election, he shall deliver an address upon such matters as he may deem of importance to the Society, and shall perform such other duties as custom and parliamentary usage require.

SEC. 2. On the request of the President, or, in his absence, one of the Vice-Presidents shall preside. In the event of the absence of the President and both Vice-Presidents, tbe two Branches of this Society, in joint session, may elect a President pro tem.

SEC. 3. The Secretary shall keep correct minutes of the transactions of both branches of this Society, and, when approved, transcribe them into a book for that purpose. He shall have charge of all books, papers and documents belonging to this Society, other than those pertaining to the Treasurer, the Trustees, or the Committee on Publication. Within ten days after adjournment of each annual meeting he shall furnish the Committee on Publication with a correct copy of the minutes for publication. He shall notify all the members of committees of their appointment, and request an answer in writing in

regard to acceptance. He shall furnish the chairman of every committee with the names of his associates, and, in case of special committees, with a copy of the resolution or resolutions under which the committee was appointed. He shall verify the credentials of members and delegates. He shall keep a roll of members. He shall provide a book of registration, to be signed by all members in attendance, and a separate book, to be signed by all delegates. He shall forward credentials to members who may be elected delegates to the American Medical Association. He shall give due notice to all members and all county medical societies one month in advance of the annual meeting of this Society. He shall collect all money due this Society, and pay the same to the Treasurer within ten days after receipt thereof. He shall furnish to the Trustees a bond in the sum of One Thousand Dollars ($1,000.00) for the faithful performance of his duties. He shall make an annual report and shall perform such other duties pertaining to his office as may be required.

SEC. 4. The Assistant Secretaries shall assist in all the duties of the Secretary during the meetings of the Society, and shall officiate in the absence of the Secretary.

SEC. 5. The Treasurer shall have charge of all the funds of this Society and shall disburse the same under the authority of the Legislative Branch upon warrants attested by the Secretary and countersigned by the President, or by written order of the Board of Trustees similarily attested and countersigned. He shall furnish to the Trustees a bond in the sum of Two Thousand Dollars ($2,000.00) for the faithful performance of his duties. He shall make an annual report in writing of the finances of the Society to the Legislative Branch.

SEC. 6. The Board of Trustees shall have supervision of the business of the Society. It shall elect from its members a Chairman and a Secretary. It shall hold at least two meetings annually. It shall fix annually the assessment of the county medical societies, and issue a written order to the Treasurer authorizing the payment of money, in accordance with Article III, Section 5, of these By-Laws. It shall have the power to invest the funds of this Society. Whenever the number of delegates exceeds eighty, as provided in Article III, Section 2, of the Constitution, it shall make a reapportionment that will bring the number of delegates within the constitutional limit, after carefully examining the membership list of affiliated county medical societies to determine therefrom the number of delegates to which each county medical society should be entitled, such reapportionment to take place at the annual meeting next succeeding that at which the reapportionment is approved by the Legislative Branch. It shall fix the salaries of the Secretary, the Treasurer, and the Editor of the Transactions.

Acting as a Judicial Council, it shall take cognizance of and decide upon questions of an ethical or judicial character that may come before it, or be referred to it by county medical societies, or members thereof. It shall carefully investigate all charges of mal-practice alleged against a member in good standing, and, if it is found that such charges are groundless, it may take such steps as may be considered best for the protection and defense of the accused. When deemed necessary, the Council is authorized to employ an attorney to advise or defend in all matters for or on behalf of this Society, or a member of the same. The Council shall meet at the call of the Chairman for the transaction of any business that may be properly presented to it. It shall keep a record of all of its proceedings and submit a report in writing, signed by a majority of the Council, to the Legislative Branch at each annual meeting.

SEC. 7. The duties of the members of the Board of Medical Examiners elected by this Society shall be such as are prescribed by the laws of California governing said Board.

ARTICLE IV.

LEGISLATIVE BRANCH AND DELEGATES.

SECTION 1. The Legislative Branch shall be the legislative and fiscal body of the Medical Society of the State of California, and shall consist of delegates representing each affiliated county medical society and delegates representing members at large.

SEC. 2. Each county medical society entitled to representation shall have the privilege of sending to the State Society one delegate for every fifty of its number, and one for any additional fraction of that number, but each affiliated society having less than fifty members shall be entiled to one delegate. All members who are not connected with an affiliated county medical society shall be members at large, and shall be entitled to the same proportional representatiton.

SEC. 3. Delegates to the Legislative Branch shall be elected for a term of two years, and those societies entitled to more than one representative are required to arrange such election so that one-half of their delegates, as near as may be, shall be elected each year, excepting the first election of delegates after the adoption of this Constitution and By-Laws, when one-half shall be elected for one year.

SEC. 4. At the first annual meeting of this Society, after the adoption of this Constitution and By-Laws, the delegates of the county medical societies entitled to only one delegate shall draw lots to determine which half of the delegates shall hold for one year. Thereafter all delegates shall hold for two years, or until their successors are chosen.

SEC. 5. The Legislative Branch shall approve all memorials and resolutions of whatever character issued in the name of the Medical Society of the State of California before the same shall become effective.

SEC. 6. The sessions of the Legislative Branch shall he open to all members of this Society, but, except upon invitation of this Branch, they shall have no right to participate in its proceedings.

ARTICLE V.

SCIENTIFIC BRANCH.

SECTION 1. The Scientific Branch shall be for the benefit of all members, for the purpose of promoting scientific medicine and surgery, the maintenance of the honor and character of the medical profession, and to further cordial relations and fellowship.

ARTICLE VI.

COMMITTEES.

SECTION 1. The following standing committees shall be appointed annually: 1, Arrangements; 2, Publication; 3, Auditing; 4, Memorial; 5, Medicine and Therapeutics; 6, Surgery and Anatomy; 7, Obstetrics; 8, Gynaecology; 9, Pediatrics; 10, Eye; 11, Ear, Nose and Throat; 12, Genito-Urinary Diseases; 13, Cutaneous Diseases; 14, Nervous and Mental Diseases; 15, Hygiene, Sanitation and Climatology; 16, Pathology and Bacteriology; 17, Chemistry and Physiology; 18, Medical Legislation and Education; 19, Scientific Program.

(Amended to read as above.)

SEC. 2. The Committee on Arrangements shall consist of five members, the Chairman of which shall be a member of an affiliated society of the county in which the next annual meeting of this Society is to be held. Its duties shall be to perfect the program and make all necessary arrangements for the annual meeting for which it is appointed.

(Amended to read as above.)

SEC. 3. The Committee on Publication shall consist of five members. It shall supervise all the publications of this Society, and it shall have full power to determine what papers, or portions of papers, shall appear in the printed transactions. No paper that has appeared in print, or has been read before any medical association prior to its presentation to this Society, shall be published in the transactions. The Chairman of this committee shall be editor of the transactions, and may be paid such salary as the Board of Trustees may determine.

SEC. 4. The Auditing Committee shall consist of three members. Its duties shall be to examine all bills and warrants, audit the accounts of this Society, and report in writing to the Legislative Branch.

SEC. 5. The Memorial Committee shall consist of three members. Its duties shall be to present a "Memorium" upon those members who have died during the current year.

SEC. 6. The Committee on Scientific Program shall consist of five members. Its duties shall be to arrange the program of reports of scientific standing committees, with discretionary power to select and arrange voluntary papers and discussions thereon, and to furnish a copy of such program to the Committee on Arrangements at least fifteen days prior to date of annual meeting.

SEC. 7. The remaining standing committees shall be designated "Scientific Committees," and shall each consist of five members. They shall report to the Scientific Branch by contributing papers or other scientific matter germane to their respective subjects.

(Amended to read as above.)

SEC. 8. The Chairman of each Scientific Committee shall send to the Committee on Scientific Program the names of authors and titles of all papers and reports to be presented from his section at least thirty days before the date of the annual meeting. The papers or reports to be read, or a copy therof, shall be placed in the hands of the Committee on Scientific Program at least fifteen days prior to date of annual meeting.

SEC. 9. No paper, address or report presented before the Scientific Branch, except the address of the President, shall occupy more than twenty minutes. In discussion, no member shall be allowed to occupy more than five minutes, except by consent.

ARTICLE VII.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

SECTION 1. In accordance with the By-Laws of the American Medical Association, the Legislative Branch of this Society shall elect one delegate and an alternate for every five hundred of its regular members, and one delegate for any additional fraction of that number.

ARTICLE VIII.

ORDER OF BUSINESS—SCIENTIFIC BRANCH.

SECTION 1.

1. Calling to order.
2. Address of Welcome.
3. Address by President.
4. Reading and discussion of papers and reports of Standing Committees.
5. Reading and adoption of minutes.
6. Adjournment.

SEC. 2. Legislative Branch:

1. Calling to order.
2. Roll call.
3. Report of President.
4. Report of Secretary.
5. Report of Trustees and Judicial Council.
6. Report of Treasurer.
7. Report of Standing Committees.

8. Report of Special Committees.

9. Unfinished Business.

10. New Business.

11. Selection of place of meeting.

12. Election of Officers and Delegates.

13. Reading and adoption of minutes before adjournment of each session.

14. Adjournment.

SEC. 3. The above Order of Business of either Branch of this Society shall be subject to temporary change or suspension by a majority vote of all members present, except the selection of the next place of meeting and the election of Officers and Delegates, as provided in Article V, Section 2, of the Constitution.

ARTICLE IX.

RULES OF ORDER.

SECTION 1. This Society shall be governed by the rules prescribed in "Roberts' Rules of Order."

ARTICLE X.

REFERENDUM.

SECTION 1. The Scientific Branch shall have the right to refere any question pertaining to the scientific interest only of said Branch upon a two-thirds vote, to the Legislative Branch, for its consideration and action.

ARTICLE XI.

REVENUE.

SECTION 1. Revenue for meeting current and other expenses of this Society shall be raised as follows:

Each county medical society in affiliation with this Society shall be assessed not less than One Dollar ($1.00) per member annually, or such further sum, not to exceed Five Dollars ($5.00) per member, as may be assessed annually by the Board of Trustees, such further sum to be paid also by the members at large annually at a per capita rate.

By voluntary contributions for specific objects.

From the profits of publications.

From dues of members residing in a county in which there is no county medical society, and from members who were such prior to the adoption of this Constitution and By-Laws, but not members of a county medical society.

(Amended to read as above.)

ARTICLE XII.

APPROPRIATIONS.

SECTION 1. Funds may be appropriated by the Legislative Branch, or a majority vote of the Board of Trustees, for defraying the expenses of the annual meetings, for publications, payment of salaries, to enable standing and special committees to conduct their correspondence, procure aid and materials necessary for the completion of their reports, and for the encouragement of original and scientific investigation by awarding prizes.

SEC. 2. The annual salary of the Secretary shall not exceed Two Hundred Dollars ($200.00). The annual salary of the Treasurer shall not exceed One Hundred Dollars ($100.00), and the annual salary of the Editor of the Transactions shall not exceed One Hundred and Fifty Dollars ($150.00).

ARTICLE XIII.

ORGANIZATION AND MEMBERSHIP OF COUNTY MEDICAL SOCIETIES.

SECTION 1. It shall be the privilege and duty, when practicable, of members of the regular profession living in any county in this State, to organize a County Medical Society, to affiliate with the State Society, provided that public notice of the meeting for that purpose be given, and that all regular physicians in good standing in the county be invited to join therein. Such society may elect officers and adopt By-Laws that do not contravene those of the State Society. But one County Medical Society in each county of the State shall be recognized in affiliation with this Society.

In counties where it is not practicable to organize a County Medical Society, any member of the profession in said county may have the privilege of uniting with the Society of an adjoining county, but such membership shall continue only during the time that no organized County Medical Society exists in that county. If, however, it is more convenient for a physician who lives in one county to attend the meetings of an adjoining County Medical Society, he may, with the consent of the Judicial Council, continue as or become a member of such Society.

SEC. 2. When a member in good standing removes to another county, his name shall be transferred to the roll of members of the County Medical Society of his new residence, if a society exists in that county, otherwise, if he so desires, to the most convenient adjoining County Medical Society.

SEC. 3. No one shall be admitted to membership in a County Medical Society who is not a legalized regular practitioner, and of good moral and professional standing.

ARTICLE XIV.

PRIVILEGES AND REQUIREMENTS OF COUNTY MEDICAL SOCIETIES.

SECTION 1. Each County Medical Society now existing, or which may hereafter be organized, and shall elect to become affiliated with the Medical Society of the State of California, shall transmit to the Secretary of the said State Society a copy of its By-Laws and Rules, with the names of officers and members, and as soon as the report is returned, approved by the Judicial Council, the Society will thereafter be recognized as an affiliated Society and authorized to elect delegates to the Legislative Branch of this Society.

SEC. 2. The officers of a County Medical Society shall be a President, a Vice-President, a Secretary and a Treasurer. Any Society may have a second Vice-President, a Corresponding Secretary, a Librarian and a Board of Trustees.

SEC. 3. As provided in Article I of these By-Laws, the Secretary of each County Medical Society shall forward to the Secretary of this Society a certified list of officers and members, of delegates elected to the Legislative Branch, also remittance of dues one week before each annual meeting. In case of failure of any County Medical Society to so report its membership and delegates, and pay its dues, said Secretary shall not be entitled to representation nor to its quota of publications until such delinquency is satisfied.

SEC. 4. And County Medical Society having its privileges suspended for two successive years shall be dropped from the list of affiliated societies.

SEC. 5. If any County Medical Society shall refuse to pay its annual assessment, or to investigate a charge of violation of the Code of Ethics on the part of any member, or to discipline such member if found guilty, or commit any act which may be derogatory to the honor of the medical profession, such society shall, during such time, have all its rights and privileges suspended.

SEC. 6. No member of a County Medical Society shall be deprived of his membership unless by his own act, except by a three-fourths affirmative vote of all members present at a regular meeting, and after an opportunity has been given for the accused to be heard in his own defense; but a member shall be dropped from the roll of membership for two years non-payment of dues, or for a revocation of his certificate by the Board of Medical Examiners of the State of California.

SEC. 7. No member shall be permitted to resign while he owes dues, or while he is under charges. Any member of a County Medical Society who is censured, suspended or expelled, shall have the right to appeal to the Judicial Council of the State Society. This appeal must be made within three months from date of the act of censure, suspension or expulsion. The decision of the Judicial Council shall be reported to the Legislative Branch of the State Society at its next annual meeting for final adjudication.

SEC. 8. When a member shall resign his membership in his County Medical Society, he shall thereby forfeit all right and title to any share in the privileges and property of the Medical Society of the State of California, or its subordinate divisions.

ARTICLE XV.

NOTICES OF DEATH.

SECTION 1. On the death of any member, the Secretary of the Society to which he belonged shall send notice of his death, also biographical data, to the Chairman of the Memorial Committee of the State Society.

ARTICLE XVI.

SEALS.

SECTION 1. The Seal of this Society shall be of the same size and design as the Seal of the State of California. The marginal inscription shall have in the upper segment, "The Medical Society of the State of California"; in the lower segment, "1856 and 1902."

It shall be in the custody of the Secretary of this Society, and shall be affixed to all papers emanating from the Medical Society of the State of California.

SEC. 2. The Seal of each of the County Medical Societies shall be identical in size and design with that of the State Society. The marginal inscription shall have in the upper segment the year of its organization and the letters "M. S. S. C."; in the lower segment the name of the Society.

ARTICLE XVII.

AMENDMENT TO BY-LAWS.

SECTION 1. The Legislative Branch is authorized to amend any Article or Section of the By-Laws by a three-fourths affirmative vote of the members present, provided that such amendment has been submitted in writing and posted in a conspicuous place in the hall where the sessions of the Society are being held twenty-four hours previous to being voted upon.

SEC. 2. The Constitution and By-Laws heretofore governing this Society are hereby repealed, except so far as the dues for the present fiscal year are concerned, and this Constitution and By-Laws shall be in full force and effect immediately after adjournment of the annual meeting of the State Society, by which it is declared duly adopted. All the officers elected at this session, to serve under the new Constitution and By-Laws, shall be such as are required by the new Constitution and By-Laws, and shall be considered duly elected.

IMPORTANT ADDITION.

The San Francisco Evening Post of the 13th says:

"A physiology hall, containing a salt water aquarium, research laboratories and class laboratories, will be erected at once on the Berkeley campus, through the generosity of Mr. Rudolph Spreckels. Physiology Hall will shelter the new department which is to be organized by Dr. Jacques Loeb. A number of scientists will come to Berkeley with Dr. Loeb, in order to avail themselves of the opportunities for research offered by the new university laboratories. These investigators will have no official connection with the university, but will devote their entire time to research.

"As aides Professor Loeb will have Dr. Frank Watts Bancroft, already instructor in physiology in the university, who will have charge of undergraduate instruction in the subject; Dr. Martin Fischer, a man who has already published many valuable researches in physiology, who will have charge of the instruction for medical students, and Mr. Charles Gardner Rogers, who is to be assistant in physiology in Dr. Loeb's laboratories in Berkeley. Dr. Fischer and Mr. Rogers are associate and assistant in physiology in the University of Chicago.

"The plans of Physiology Hall have already been drawn, after a conference in Chicago between Professor Loeb and John Galen Howard, supervising architect of the university. Howard will arrive from the East Thursday evening, and work on the new building will be begun within a short time. The pressing need for the building, for Dr. Loeb will begin his work in Berkeley in January, requires that the building which Mr. Spreckels will erect shall be temporary in construction. Its plaster exterior will, however, be of pleasing architecture. The central portion of the building, two stories in height, will be devoted to research. It will contain a number of private laboratories for the use of Dr. Loeb and his assistants and for visiting investigators. In this part of the building there will be also storerooms for materials and supplies."

Dr. Luc H. J. Masson died in Paris on October 14th. He came to San Francisco in 1896 and practiced here until this year. He was born in Canada and received his degrees from the College of Physicians and Surgeons, Quebec; the Faculty of Medicine, Paris, and the University of Louvain, Belgium. He succumbed to an attack of appendicitis.

The body of Dr. Lorenzo T. Gorsuch, who died at Forest Hill, near Colfax, October 31st, was shipped to Centerville, Iowa, his former home, for burial. The remains were accompanied by his brother, Dr. J. H. Gorsuch of this city. The deceased was 30 years of age, and up to about five months ago resided in Oakland. Tuberculosis was the cause of his death. Deceased was a brother-in-law of Dr. H. F. Worley, also of this city, who went to Forest Hill upon receipt of the telegram announcing the death.—Oakland Enquirer.

PATHOLOGICAL CONGRESS.

A cable dispatch under date of October 24th, from Berlin says:

About 100 eminent authorities on pathological research assembled in the Prussian Parliament House yesterday to discuss the results of another year's inquiries into the nature and treatment of consumption. Most of those who have come to the congress from a dozen countries have something original to contribute. France is represented by twenty delegates and Germany by more. Among the German representatives is Dr. Koch. There are two delegates from the United States.

The feature of the day was an account by Dr. Chalmette of Lille, France, of the house to house crusade against tuberculosis in France, especially the nursing at home system carried on by private beneficence. The State partakes in this only by subsidies from the Mutual betting at the races. Societies have been formed in each town, supported by the town councils and various social groups, that try to prevent the spread of consumption among the working classes, and sanitarily educate their families, supplying advice and medicine at dispensaries. Dr. Chalmette described the operations at Lille since February, 1901. The principle is to give the largest relief to the less seriously injured among the poorest people so as to lengthen their economic life. Every patient's lodgings at regular intervals are washed with chloride of lime and the walls are whitewashed. The sanitary education of the families is done at home, mostly by intelligent workmen, especially taught for this kind of lecturing. They explain how to make a house healthy, disinfect linen and supply food and material for relief during the person's enforced idleness. Expectorators are instructed that spitting is as dangerous to them as to the persons around them, because the expectorators inhale bacilli.

Dr. Van Rynn of Brussels, read a paper on the notification of consumption cases to the health authorities, "the happy results of which and the preventive measures involved could be seen in New York, where the censumptive death rate had decreased thirty per cent in a few years." This notification, Dr. Van Rynn added, should exist in all countries. because to destroy the infection centers it is necessary to be informed where they exist. Dr. Andvord of Christiania, said there had been compulsory notification in Norway since January 1, 1901, and it had not had the disturbing effect expected. An English delegate said compulsory notification was impossible in England, owing to the public opinion against interfering with the sanitary conditions of homes.

Dr. and Mrs. J. Hamilton Todd have returned from an extended visit to the East. Dr. Todd expresses himself as having been greatly benefited by the rest, and change of scene and climate.—*Oakland Tribune.*

MEDICAL SOCIETY DIRECTORY.

STATE SOCIETIES AND ASSOCIATIONS.

SOCIETY	PRESIDENT	SECRETARY	NEXT MEETING
Alabama, Med. Assn. of the State of.	Glenn Andrews, Montgomery	G. P. Waller, Montgomery	Talladega, April 21, 1903
Arizona Medical Association	H. W. Fenner, Tucson	Chas. H. Jones, Tempe.	
Arkansas Medical Society	C. R. Shinault, Helena	J. P. Runyan, Little Rock	Jonesboro, May 12-14, 1903
California, Med. Soc. of the State of.	F. B. Carpenter, San Francisco	George H. Evans, 807 Sutter St., San Fran	Santa Barbara, April 24, 1903
Colorado State Medical Society	B. W. Corwin, Pueblo, Colo	J. M. Blaine, 16th and Stout Sts., Denver	
Connecticut Medical Society	Gould A. Shelton, Shelton, Conn.	N. E. Wordin, 274 Fairfield Ave., Bridgeport	Hartford, May 27-28, 1903
Delaware, Medical Society of	E. S. Dwight, Smyrna	J. Palmer, Jr., 1900 Del. Ave., Wilmington	
District of Columbia, Med. Assn. of.	Geo. N. Acker, Washington	Monte Griffith, Washington	Washington, Oct. 7, 1902
Florida Medical Association	J. Harris Pierpont, Pensacola	J. D, Fernandez, Jacksonville	St. Augustine, April 8, 1903
Georgia, Medical Association of	Chas. Hicks, Dublin	Louis H. Jones, Atlanta	Columbus, April 15, 1903
Idaho State Medical Society	H. A. Castle, Pocatello	Ed. E. Maxey, Boise	Moscow, October 9-10, 1902
Illinois State Medical Society	M. L. Harris, Chicago	E. W. Weis, Ottawa	Chicago, May 19-21, 1903
Indiana State Medical Society	A. W. Brayton, Indianapolis	F. C. Heath, 19 W. Ohio St., Indianapolis	
Indian Territory Medical Assn	Geo. W. West, Eufaula	Fred. S. Clinton, Tulsa	
Iowa State Medical Society	J. Taggart Priestley, Ds Moines, Ia.	V. L. Treynor	Sioux City, Ia., May 20-22, '03
Kansas Medical Society	J. W. May, Kansas City	W. E. McVey, Topeka	Concordia, May 6-9, 1903
Kentucky State Medical Society	W. W. Richmond, Clinton	Steele Bailey, Stanford	Louisville, May 12, 1903
Louisiana State Medical Society	I. Dyer. 124 Baronne St., N. Or., La.	A. C. Friedrichs. 641 St. Charles St., New Or., La.	New Orleans, Apr. 23-24-25, '03
Maine Medical Association	Frederic Henry Gerrish, Portland	Chas. D. Smith, 126 Free St., Portland	
Maryland Med. and Chir. Faculty of	Wm. T. Howard, Baltimore	J. W. Lord, 24 W. Franklin St., Baltimore	Baltimore, April 28, 1903
Massachusetts Medical Society	G. E. Francis, Worcester, Mass.	F. W. Goss, Roxbury	Boston, June 9-10, 1903
Michigan State Medical Society	Leartus Connor, Detroit	A. P. Biddle, 57 W. Fort St., Detroit	
Minnesota State Medical Society	W. A. Hall, Minneapolis	Thos. McDavitt, St. Paul	
Mississippi State Medical Assn	H. L. Sutherland, Rosedale	C. H. Trotter, Winona	Greenville, April 21-23, 1903
Missouri, Med. Assn. of the State of.	D. C. Gore, Marshall	E. J. Goodin, Limnar Bldg., St. Louis	Excelsior Sp'gs, May 19, 1903
Montana, Medical Association of	T. J. Murray, Butte	B. C. Brooke, 6th and Main Sts., Helena	
Nebraska, State Medical Society	A. B. Anderson, Pawnee City	A. D. Wilkinson, Lincoln	Lincoln, May 5-7, 1903
New Hampshire Medical Society	Irving A. Watson, Concord	G. P. Conn, North Main St., Concord	Concord, May 21-22, 1903
Nevada, Medical Association of	A. Huffaker, Carson	A. E. Hershiser, Reno	
New Jersey, Medical Society of	J. D. McGill, Jersey City	Wm. J. Chandler, South Orange	
New Mexico Medical Society	W. G. Hope, Albuquerque	J. F. McConnell. Las Cruces	E. Las Vegas, May 13, 1903
New York State Medical Assn	A. A. Hubbell, Buffalo	G. D. Lombard, New York City	New York, Oct. 21-23, 1902
N. Carolina, Med. Soc. of the State of	A. W. Knox, Raleigh	J. Howell Way, Waynesville	Hot Springs, 1903
North Dakota State Med. Society	H, D. Quarry, Grand Forks	E. C. Branch, Wheatland	Bismarck, May, 1903
Ohio State Medical Society	E. C. Brush, Zanesville	P M. Foshay, 89 Euclid Ave., Cleveland	
Oklahoma Territory Med. Assn	R. D. Love, Perry	E. O. Barker, Guthrie	
Oregon State Medical Society	C. J. Smith, Pendleton	A. D. Mackenzie, Portland	Portland, Sept-, 1902
Pennsylvania, Med. Soc. of the State of	William M. Welch. Philadelphia	Cyrus Lee Stevens, Athens	Allentown, Sept. 16-18. 1902
Rhode Island Medical Society	George F. Keene, Howard, R. I.	F. L. Day, 240 Benefit St., Providence	
South Carolina Medical Association	M. Simmons, Charleston	T. P. Whaley, Charleston	Sumpter, S.C , Apr. 15-16, 1903
South Dakota State Medical Society	C. C. Gross, Yankton	J. L. Stewart, Irene	
Tennessee State Medical Society	S. R. Miller, Knoxville	D. J. Roberts, Nashville	Nashville, April 14-16, 1903
Texas State Medical Association	S. C. Red, Houston	H. A. West, Trust Co. Building, Galveston	San Antonio, April 28, 1903
Utah State Medical Society	I. A. E. Lyons, Salt Lake City	Geo. E. Robison, Provo City	
Vermont State Medical Society	J. B. Wheeler, Burlington	George H. Gorham, Bellows Falls	Burlington, Oct. 9-10, 1902
Virginia, Medical Society of	R. S. Martin, Stuart	L. B. Edwards, 106 W. Grace, Richmond	Newport News, Va., Sept. 23-5, '02
Washington State Medical Society	J. W. Bean, Ellensburg	A. H. Coe, Spokane	
West Virginia, Medical Society of	H. B. Stout, Parkersburg	W. W. Golden, Elkins	Charleston, May, 1903
Wisconsin State Medical Society	J. V. R. Lyman, Eau Claire	Charles S. Sheldon, Madison	Milwaukee, 1903
Wyoming State Medical Society	G. G. Verbryck, Cambria	C. H. Solier, Evanston	Cheyenne, Sept. 9-10, 1902

CALIFORNIA COUNTY MEDICAL SOCIETIES.

NAME	PRESIDENT	SECRETARY	MEETS
Alameda County Med. Association	E. J. Overend, Oakland	A, H. Pratt, Oakland	
Fresno County Medical Society	Wilson Fowler, Fresno	Fred Twining, Fresno	First Tuesday
Kern County Medical Society	T. W. Helm. Bakersfield	Wm. S. Fowler. Bakersfield	
Lake County Medical Society	J. S. Downs, Lakeport	H. O. Brink, Lakeport	
Los Angeles County Med. Society	H. Bert Ellis, Los Angeles	C. G. Stivers, Los Angeles	
Marin County Medical Society	A. H. Mays, Sausalito	W. F. Jones, San Rafael	First Saturday
Orange County Medical Assn	H. S. Gordon, Westminster	J. L. Dryer, Santa Ana	
Riverside County Medical Society	Louise H. Clark, Riverside	L. H. Clarke, Riverside	
Sacramento Society for Med. Imp	F. W. Hatch, Sacramento	E W. Twitchell, Sacramento	
Medical Assn. of San Bernardino	W. Thompson, San Bernardino	C. A. Mackechine, San Bernardino	
San Diego County Medical Society	R. L. Doig, San Diego	T. L. Magee, San Diego	
San Francisco County Med. Society	Louis A. Kengla, San Francisco	Wm. F. Barbat, San Francisco	Second Tuesday
San Joaquin County Med. Society	S. E. Latta, Stockton	C. R. Harry, Stockton	Last Friday
Santa Barbara County Med. Assn	Chas. Anderson, Santa Barbara	W. B. Cunnane, Santa Barbara	
Santa Clara County Med. Society	H. C. Brown, San Jose	W. T. McNary, San Jose	
Tri-County Medical Society		S. T. Pope, Watsonville	
Tulare County Medical Society	A. L. Wilson, Tulare	T. J. Patterson, Visalia	
Ventura County Medical Society	John H. Love, Ventura	C. L. Bard, Ventura	
Med. Soc. of Yuba and Sutter Cos.	T. P. Peery, Yuba City	E. W. Hanlon, Marysville	Quarterly

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Publication Committee:

Philip Mills Jones, M. D. George H. Evans, M. D.
Henry Gibbons, Jr. M. D. Dudley Tait, M. D.
Charles D. McGettigan, M. D.

Office of the Journal, - - - - 31 Post St. San Francisco

DECEMBER, 1902.

EDITORIAL NOTES.

PHARMACEUTICAL STANDARDIZATION.

Attention is called to an article in the present number of the JOURNAL by Dr. F. E. Stewart. The evils referred to by Dr. Stewart and the method of remedying them as suggested by him have existed for nearly a quarter of a century. The Smithsonian Institution, the Department of Agriculture, the American Medical Association, the Americal Pharmaceutical Association, and, in fact, every learned body and every professional man of prominence to whom or before whom this matter has been presented, has unreservedly advocated some plan for securing the standardization of chemicals, drugs, pharmaceuticals, and the principal food stuffs; yet nothing has, as yet, been done. The reason why such an excellent project has never reached anything more than the stage of suggestion and approbation, is not far to seek. It is simply lack of organization. A United States Senator, some years ago, when approached on the subject, stated that the medical and pharmaceutical professions could obtain any legislation they really wanted, if they were sure that they wanted it and acted as a concerted whole. Lack of organization has heretofore prevented any action looking toward the remedy of the present evils. It is urged that we have a fixed standard in the Pharmacopœia; true, but the Pharmacopœia is a dose that is elective with the manufacturer, and he almost invariably elects, in a lordly fashion peculiar to his kind, to disregard it. The condition has grown so much worse, within the last few years, that at present the physician who writes a prescription has no certainty that it will be compounded alike by two druggists, using preparations of different manufacturers, and he is being forced to prescribe semi-proprietary mixtures, the actual composition of which he is in ignorance and the valuable and wonderful properties of which are being constantly urged upon him, not by any one with authority to speak, but the manufacturer who can see nothing except the advantage of lauding his mixture and the consequent dollars that may be added to his bank account. No reputable physician can mention the name of a newly introduced drug or preparation, in a scientific paper read before a medical society or perhaps written for publication, no matter how excellent it may be, without rendering himself liable to the possible false accusation of having been influenced by the manufacturer. No one can go into the open market and buy supposedly pure drugs or chemicals with any assurance that they are chemically pure. The evil is deplorable, but the remedy seems clearly to be presented in the plan suggested by Dr. Stewart and formally approved by the learned societies before which it has been presented. A bureau of standardization, backed and controlled by the medical and pharmaceutical professions of the whole country, of a personnel so far above reproach that its honesty could not be questioned, would very quickly settle the matter. It would compel the manufacturers throughout the country to follow one standard of purity and strength, one formula in the compounding of pharmacopœial preparations, and to supply a line of drugs that could be relied upon to be the same wherever prescribed, north, south, east or west. And such a bureau is not a highly rose-colored dream; it is an actual possibility and can be put upon a self-supporting business basis wherein the man who makes the money pays the bills; where the manufacturer, who makes his money directly through the physician and the pharmacist, may be compelled to manufacture as he should and to pay for the guarantee that his product complies with the accepted standards of purity and formula. An argument directly to the point is furnished in an editorial which appeared in "American Medicine" for November 1, 1902. It quotes the following from a recent number of the Lancet:

> Our experience proves that it is becoming almost impossible to admit articles in the columns of the Lancet from the pens of general practitioners and others dealing with the results of their therapeutical investigations into the value of new preparations, because all the favorable passages will at once be pounced upon by the enterprising purveyor, perhaps garbled, almost certainly dissociated from their context, and scattered broadcast over the land. We are thus, perhaps, prevented, and by the very people who would profit by the publicity, from putting before our readers papers the practical value of which may be great. The public, the medical profession, and the purveyors alike suffer. The only way to remedy the position is not a satisfactory one, but it is one to which we must have recourse.

The editorial comment upon this text is as follows:

> It is true that there are many new pharmaceutic preparations of value to the profession that should be brought to the notice of medical men by good practitioners in reputable medical journals. But the abuse pointed out by the Lancet is a veritable one. It is worse in our country than in England, due to the absurdly large number of medical journals and the professional puff-writer. It strikes us that the chief sufferer is the manufacturer of good products who will not push them by dishonest methods. It is

true that the honest manufacturer can trust to the profession righting him in time, but some means should be devised to prevent the dishonest from reaping possible immediate benefits. Are conditions reaching such a state that because of the abuses by certain advertisers all mention of proprietary preparations must be interdicted by reputable medical journals? We have known many astute men who say that, owing to the suspicion aroused in the mind of the readers, such mention prevents sales rather than encourages them.

The distressing dilemma in which both the honest manufacturer and the medical editor find themselves, as indicated in the matter just quoted, would be at once relieved if such a bureau were in existence and could stand between the manufacturer on the one hand and the physician and the pharmacist on the other.

ORGANIZATION PROGRESSING.

The conferences between the New York State Medical Association and the Medical Society of the State of New York, for years antagonistic, have had a happy ending in the recent action taken by both of them toward consolidation. At the next session of the Legislature they are to apply for a charter combining the two under the name of the Medical Society of the State of New York. This is but another milepost passed on the road to general organization of the whole regular profession of the country; when that has been effected the medical profession can get such legislation as it wants. It can then take active steps to do away with the so-called "patent" medicine evil, for the "patent" medicine business is little more than the unrestricted selling of narcotics and alcohol under fanciful names and strange disguises. There cannot be the slightest doubt that thousands and thousands of lives are ruined by habits contracted through the use of these "tonics," "bitters," "soothing syrups," etc., etc., which, as the laws now stand, are permitted free sale in any part of the country. It is within our own personal knowledge that, whereas the sale of liquors, or even such harmless stuff as beer, with its 2 per cent of alcohol, is prohibited amongst the Indians, various "patent" medicines are freely sold—and some of them contain as much as 44 per cent of alcohol. The spirit of medical progress is toward prevention—prophylaxis; yet, as the laws now stand, nothing can be done to touch the majority of these traders in lives. A thoroughly organized medical profession could wield an enormous influence; it could see to it that such men were elected to office as would promptly take action in the matter and force the faker out of business. Unfortunately most of the medical press of the country is muzzled by these very fake manufacturers, who make their money out of human lives destroyed, and many so-called medical journals will undoubtedly attack any action tending to deprive them of the portion of this blood money which reaches through their advertising pages. There are a few reputable journals in the country, however, that are not so tied by the foot, which will stand by the fight till it is won. Let every regular physician of this State see that he is a member of the State Medical Society; then, as a concerted whole, we can demand that protection to the public which is so urgently needed. Join the State Society; get into line and do it at once; don't come tagging along at the end of the procession, or come in on the caboose of the milk train; get in *now*.

AN OBVIOUS DUTY BEFORE WEDLOCK.

The question of marriage and divorce, of clouds obscuring the honeymoon, resulting in the young married couple becoming separated, has been taking up considerable space in the daily press of various parts of the country, almost rivaling, in fact, the amount of space devoted to the immorality and sensuality, to say nothing of the inanity of the metropolitan fast set—commonly known as the "four hundred." To the latter question we do not wish to here devote any space; it seems too obvious to demand further attention from any one not connected with the courts or the bar The discussion on marital infelicity and divorce has called forth an expression of opinion from a number of more or less prominent people, who, with one exception, have written many words and said—nothing. The ingenuity they have displayed in dodging the real question at issue, however, is somewhat amusing. Every one who sees and has sufficient gray matter to think knows, but seldom says so out loud, the real fundamental reason. Why should a bride of a few weeks leave her newly wedded husband and the animal life she has but just discovered, and return to her home? Does not he who asks this question know that the answer is to be found running back into unwritten history? Why does a wife leave her husband to go with some other man, living in unlawful association, enduring shame and disgrace, hardship and suffering, but sticking to the man to whom she has no legal claim? The answer is writ plain for him who can read, and may be found in the first transcript of Semitic folk-lore, as represented in the Old Testament. What is the explanation of that peculiar look, as of a hunted animal, that is so often to be seen in the eyes of a young bride? The young girl goes to her wedding knowing nothing that she should know, while the prospective bridegroom meets her at the altar with a wealth of knowledge and experience that it would be well for her if he did not have. But one writer, and that one a woman, has been brave enough to plainly state the truth. Ella Wheeler Wilcox certainly has the courage of her convictions and the

support of what she knows to be the truth: "The important phases of marriage, sexual relations and maternity are never discussed by the modern young woman of the cultured classes and her mother—only the social and financial features. The average girl of the upper walks of life is, therefore, dwarfed and stunted in her emotional qualities and absolutely ignorant of the masculine nature when she goes to the altar. Meanwhile the man whom she selects for a husband has, as a rule, learned all he knows of feminine emotions and passions from women in other walks in life. * * * He chooses a girl of spotless reputation for a wife, yet he treats her as if she were a Sappho, a Du Barry, or a Phryne. * * * What but chaos can ensue? * * * It is the ridiculously false modesty of parents and their shameful indifference to a subject which is the root of all existence, that make so many marriages failures."

The burden of responsibility is placed, by Mrs. Wilcox, upon the parents; but should not some of it be borne by the family physician? He could, if he would, or if he were permitted, do much. very much, to ameliorate the trouble. The sage advice of one old family doctor to a young man in one of his families who was about to be married, can hardly be improved upon. "My son, remember that seduction is much less criminal than rape." If these questions are to be discussed at all, and there is no good reason why they should not be, then let us have expression that is sufficiently plain. Let both contracting parties to a marriage thoroughly understand their marital and sexual obligations, the one toward the other; and if their parents have not sense nor courage enough to enlighten them, then let the "good old family doctor" step in and tell them what they should know.

AFFILIATION OF THE COUNTY SOCIETIES.

The few county medical societies in the State that have not as yet organized under or complied with the provisions of the State Society for affiliation should do so without delay. It must not be forgotten that under the revision of the constitution and by-laws of the American Medical Association delegates to the House of Delegates of that Association are now elected only by the recognized State medical societies. Formerly any medical society that adopted the Code of Ethics of the American Medical Association was considered in affiliation with that body and could elect delegates to it; now the conditions are altered. Organization is the only path for the regular physicians of the country to tread, and there must be no faltering, no backward tendency, no hesitation, no dragging up of old fights and petty squabbles. Every one must come into the State Society and thus have a voice in the affairs of the National Association. The secretaries of the county societies must remember that something more than a letter to the Secretary of the State Society stating the fact "that their society is willing to affiliate with the State Society," is required. They must forward a copy of their constitution and by-laws, together with a full list of the officers and members of their respective societies, to the Secretary of the State Society. In almost every case some minor alterations in the constitution and by-laws will have to be made before formal affiliation can be recognized by the State Society, so a certain amount of time is required in order to bring these matters into line. Do not delay; attend to the matter at once and correspond with the Secretary of the State Society, Dr. George H. Evans, 807 Sutter street, San Francisco.

SCIENTIST TO BE AT THE HELM.

A majority of the electors of this State have placed their interests in the hands of a gentleman than whom no man in the ranks of the medical profession has shown a greater regard for strict medical ethics. Dr. Pardee has been a member of the State Society for many years and has shown much interest in its meetings and its aims; he has been in close touch with its members and has the respect of all and the love of many. The position in which he will be placed, as Governor of California, will be, to say the least, somewhat trying. On the one hand are large commercial and monetary interests to be safeguarded; and heretofore the policy of negation and concealment, and of absolute inertia in regard to the plague question, has been the policy dictated by California's commercial interests. On the other hand stand the ranks of Dr. Pardee's professional brethren; men of irreproachable character and great scientific ability; men who live and work for but one thing—for scientific truth and honesty; men who are without "their price," whom no consideration could induce to swerve from their plain duty to science, to their professional obligations, and to the welfare of the people at large. And these men, after long and careful study of ample evidence, have unanimously proclaimed that plague exists in San Francisco; that it is a menace to the whole United States; and that the "do nothing and say nothing" policy of concealment is the worst that could be followed under the circumstances. In many cities and States of the country men who have the best interests of the whole United States at heart are asking each other what position Dr. Pardee, as Governor of California, will take toward the plague question. Will he stand firmly for an open avowal of present conditions and a rigorous treatment of them, or will he be influenced by the tricky politician and the bloodless commercial interests to continue in the more than foolish policy of concealment established by that eminent scientist, Governor Gage? Dr. Pardee falls heir, with the Governor-

ship of the State, to a problem requiring great firmness of character, great honesty of purpose, and a clear and resourceful brain for its solution. We have faith in Dr. Pardee's ability and honesty, and that he will succeed in determining upon and thereafter following the right course; but we would urge that an expression of opinion from him, as soon as may be, will be welcomed, not alone by his professional associates here in California, but by every State Board of Health in the country.

COMMERCIAL vs PROFESSIONAL.

There are two equally important points from which the residents of the Pacific Coast States view the plague question. One is purely commercial and the other largely professional. The contention of the business man is that public utterances regarding the presence of the disease should be discouraged and prevented, if possible. They reason according to the old saying, that the truth should not be told at all times. They see only possible danger to the trade of the Coast, and decline to look into the future or take a serious view of what might one day develop into a national calamity. They seem to rest content with daily newspaper accounts and opinions—from laymen—in many instances fallacious, in others imaginary. One statement going the rounds is to the effect that the disease is known to have existed in various places on this Coast for twenty or thirty years without causing alarm or occasioning comment. Another is to the effect that our climate is not favorable to the existence of the disease, and that it cannot, therefore, become epidemic.

The physician, on the other hand, does not agree with the commercial man in his insistence that the subject be tabooed, for the medical profession regards the subject as of such vital importance to the whole country that it should be thoroughly investigated and given all the publicity possible. If there is danger of the plague spreading, it becomes the duty of medical men to warn the public and to do all in their power to stamp out the disease upon its first appearance, and not wait until it obtains a foothold and becomes too strong to cope with.

The JOURNAL disclaims any intention to belittle the importance of the commercial interests of this Coast. Physicians, as well as other residents, are vitally concerned in maintaining the prosperity with which this section of the country is blessed, but it is the plain duty of the profession to give timely warning of danger and to advocate stringent measures against the introduction of infectious diseases. A menace confronts us in the Oriental trade now as never before, for that trade is growing to enormous proportions. San Francisco is, of course, the most important, but it is not the only port on the Coast through which disease-impregnated commodities might be introduced into the country.

ORGANIZATION IN COUNTIES.

County Medical Societies in organizing, or in applying for affiliation, must remember that the Constitution and By-Laws of the State Society provide that only *regular* physicians in good standing may be members of the County Society. In some local and county societies physicians "practicing non-sectarian medicine" are admitted as members, the source of the diploma under which they are licensed to practice not being regarded as the evidence of the school of medicine which they are supposed to practice.

On this point opinions differ. There are many men holding Homœopathic or Eclectic diplomas who really practice medicine as do those who hold regular diplomas, and they, presumably, may be regarded as "practicing non-sectarian medicine." The time may, and probably will come, when this clause will take the place of "regular" in the American Medical Association and affiliated State Societies. At present, however, this is not the case; only regular physicians are eligible for membership in the State Society. At the meeting of the State Society, when the reorganization plan was adopted, this question was discussed at some length, the final determination being that "regular" should stand. For this reason—that no one not a regular practitioner should be admitted to the State Society—a full list of the members and officers of the County Society must be sent to the Secretary, together with the Constitution and By-Laws, at the time of applying for affiliation.

Professor Lorenz, of Vienna, has been here and has gone. Fortunately the State Board of Medical Examiners was wise enough not to put any obstruction in the way of his operating in this State. "Fortunately," for the reason that he was given an opportunity to perform this operation upon a number of patients, and a former assistant of his, and a gentleman who thoroughly understands the Lorenz method and the manner of changing the plaster dressings advocated by Lorenz, is located in this city and can redress the patients as occasion requires, so that the results may be fairly judged. In a certain number of selected cases the Lorenz operation is undeniably good; but whether it is adapted to the majority of cases is very much of a question. The patients he has operated upon here in California will, in a few months, offer very valuable testimony upon this question.

Two issues of the JOURNAL have been sent to a number of physicians who are not members of the State Society, in order to bring to their attention the importance of affiliation with the State Society and to furnish them with sample copies of this publication. The JOURNAL will be sent regularly to members of the State Society. To others, the subscription price is $3 a year.

NECESSITY OF STANDARDIZING MATERIA MEDICA PRODUCTS.

By F. E. STEWART, M. D., PH. G.

IT GOES without saying that there can be no uniformity in therapeutic effects of materia medica products which essentially differ from each other in character, quality and strength. The necessity for authoritative standards with which to measure the brands of manufacturers is, therefore, generally recognized, and every civilized country has its pharmacopœia devised for that purpose.

The United States Pharmacopœia was originally devised, and is decenially revised, by a committee appointed by a congress of physicians and pharmacists representing all parts of the nation. This committee is made up of the very best men in the departments of work comprising the field of the pharmacopœia. It is therefore safe to assume that the United States Pharmacopœia is a far better standard than that set up by any individual or firm.

The pharmacopœias of all countries except the United States, Chile, Mexico, and Greece, are issued under the authority of the respective governments, and therefore partake of the nature of national laws. In this country conformity with pharmacopœial standards is purely a question of choice. The natural consequence is that the market is flooded with pharmaceutical preparations under pharmacopœial names which differ so essentially in character that they will not even mix with each other, although supposedly identical. Unauthorized preparations, of secret or semi-secret composition, abound, and are extensively advertised to the medical profession, and also to the people, as marvelous therapeutic discoveries, only to fall into merited oblivion after a short popularity, because lacking in virtue as remedial agents.

There is only one remedy for this deplorable state of affairs, and that is standardization of materia medica products to conform to common standards fixed by authority. Every new materia medica product on the market should be given a name under which all pharmacists should be free to make and sell it. Tests for its identity should be determined, and standards for its character, quality and strength established. Products appearing on the market under the names decided upon should correspond with these standards, or be considered fraudulent. This plan would free the products from commercial control and enable physicians to discuss their merits unreservedly in the medical societies without fear of reprisal from the manufacturers in cases of adverse expression regarding their therapeutic merits. Medical editors would then be in a position to act in a judicial manner in relation to new products without the risk of losing advertising patronage. There can be no free discussion, or free press, under a system of espionage and retaliation established by commerce in its relations with materia medica products.

It will doubtless be said by many that these assertions are self-evident and need no defense. But this does not alter the fact that the condition of the market is most unsatisfactory so far as materia medica products are concerned.

A few illustrations which have come under my personal observation will show the necessity of taking some action looking toward a better state of affairs. Some public institutions are supplied with medicine by advertising for bids and accepting the goods offered by the lowest bidder. Unless pharmacopœial standards are specified, preparations are sometimes offered, and accepted, which fall below pharmacopœial requirements. One of the leading officials in a department of the government told me that he once protested against a preparation because it was not up to the standard of the pharmacopœia, only to be impudently informed that pharmacopœial products were not specified and no manufacturer thought of offering pharmacopœial products unless specified. I have it from good authority that hospitals are sometimes supplied with half-strength fluid extracts, and pills containing less of the active ingredients than the pharmacopœia calls for. The excuse is that so long as conformity to pharmacopœial standards is a matter of choice, manufacturers who choose to ignore the pharmacopœia, and adopt a standard of their own, have a perfect right to do so.

The pharmacopœia defines fluid extracts to be preparations made by extracting the active principles from drugs by a certain process, using specified solvents of definite strength, carefully selected by the pharmacopœial committee for the purpose, and made of such strength that 100 c.c of the finished product shall contain in each case the active principles of 100 gm of the drug. Prepared in this way the fluid extract of any given drug will mix with the make of all other manufacturers using the pharmacopœial process, without precipitation; and, barring the inequality of the various samples of the same drug, will be uniform in therapeutic effect, no matter by whom manufactured.

But I venture to say that there are very nearly as many processes for the manufacture of fluid extracts as there are manufacturing houses, each claiming that its method of preparation is the

best. Consequently there are different standards of character and differences of opinion between physicians regarding the merits of different brands of products on the market. This forces the druggists to carry a number of brands in stock to meet the demands of the profession, and thus lock up their capital by useless duplication—useless because all brands should conform to common standards. One druggist with whom I am acquainted, is forced to carry no less than twelve brands of a certain product in stock. His place of business is Los Angeles, California, where there is a very wide range of demand, owing to the presence of tourists from all parts of the country.

Pharmacists frequently complain that prescriptions are brought to them for renewal by persons from some other part of the country, which, after they have been compounded, differ so materially from the medicine furnished before as to cause great dissatisfaction on the part of the patient. Naturally the blame is placed upon the pharmacist, whose reputation correspondingly suffers. This could not occur if pharmacopœial standards were properly observed all over the country.

A very amusing incident occurred in New York City not long ago. I got the story from both physician and pharmacist in the case, and so heard both sides of the story. The incident I am about to relate will illustrate the necessity of standardization in connection with the materia medica product in question. I refer to hexamethyl-tetramine. It is offered on the market under several names, as *formin, cystogen, urotropin,* etc., by different chemical houses, and a great many physicians and pharmacists do not know that these names mean the same thing.

In the case referred to the article was prescribed under its proper chemical name, and the pharmacist to whom the prescription was taken sent all over the city to purchase an ounce of it, but no wholesale house or manufacturer had ever heard of it. At last the pharmacist telephoned to the doctor, who, being interrupted at the breakfast table, informed the knight of the pestle that he did not know his business. After some further uncomplimentary remarks on both sides, the fact developed that the pharmacist had three ounces of the product in stock, under three different names, and did not recognize it under its chemical name. As the doctor was indifferent as to the brand dispensed, the incident closed without further trouble.

A question arises in this connection: Would the pharmacist have been justified in dispensing formin or urotropin, if cystogen had been prescribed? In other words, is it the intent of the prescriber when he writes for cystogen, formin or urotropin to specify any special brand of hexamethyl-tetramine? Or is the physician a victim of his own ignorance? Has the pharmacist the right to dispense hexamethyl-tetramine, no matter under which of the several synonyms it is prescribed? If so, does the same rule apply to antikamnia, listerine, et al? Whatever the reason, it is a fact that the pharmacists of this country are becoming very restive over a state of affairs which forces them to carry half a dozen or more brands of products in stock. There are probably eight or ten brands of many such preparations. Why not establish standards for them by placing preparations of definite formulas in the pharmacopœia and provide them with names conformable with the nomenclature of science? Then the pharmacist would have the opportunity of purchasing any brand he found to correspond with the standard, or supply his own brand if he desired to do so.

Of course the answer from the manufacturer will be that the druggist cannot be trusted to select the best brand on the market; neither is he provided with facilities in the way of selecting material and manufacturing to compete with the first introducer of a new pharmaceutical preparation, who makes it a specialty and takes great care to supply a superior article. There is much truth in the manufacturers' contention. Pharmacists, in many instances, will buy only where things are cheap. For this reason I have always advocated that brands should be provided with brand names or "word-marks" by which they may be specified. But the products themselves, under their product names, should be open to competition, so that manufacturers may vie with each other in keeping up the quality. The manufacturer who produces the highest quality of quinine at the lowest price should have the trade. Why does not the same thing apply to antikamnia, listerine, formalin and all the rest? This would place the so-called "proprietary" medicine business on the same basis as the condensed milk business. Condensed milk is a product free to science and commerce alike, but the word "Eagle," to distinguish a brand of condensed milk, is controlled by the manufacturer and used by him as his trade-mark, word-mark or commercial signature. The function of the trade-mark is to point out the manufacturer by distinguishing his brand from other brands of the same product. It is not the function of the trade-mark to point out the goods. That is the function of the title. Therefore it is an axiom of law that titles cannot be trade-marks.

In a country where the question of conforming to standards is a matter of choice, some means must be devised to separate the sheep from the goats. I have frequently advocated in papers contributed to the medical societies and press the establishment of a bureau of materia medica with which physicians, pharmacists and manufacturers may voluntarily co-operate for the purpose of establishing and maintaining the standards of the pharmacopœia. The interests

involved could, if they chose, inaugurate such a bureau, and so conduct its affairs as to guarantee the standards of preparations marketed under its auspices. The bureau would be in a position to study the problems now facing the practice of pharmacy and drug therapeutics, and could assist in settling them satisfactorily to all concerned. The work of such a bureau would in no way interfere with that of the committee for revising the pharmacopœia. On the contrary, it would supplement and greatly assist it. In fact, such a bureau might be made up of members of the revision committee, and other experts, and prove of the greatest service to the professions of medicine and pharmacy, and to the public.

As I stated in my paper entitled "Proposed National Bureau of Materia Medica," published in the Journal of the American Medical Association for April 27, 1901, the objects of such a bureau would be: (1) to establish the standards of the materia medica preparations on the market and keep them under analytical and pharmacodynamic observation, with the aid and co-operation of the expert chemists, physiologists, biologists, botanists, pharmacologists and clinicians connected with the medical schools and colleges, and the pharmacists and manufacturers of medicinal drugs and chemicals; (2) to act as the medium of communication between the scientific workers in the laboratories, hospitals and clinics engaged in the investigation of new materia medica products, and those engaged in manufacturing and marketing them, to develop the knowledge of their origin, genesis, nature, composition, methods of manufacture, standardization, pharmacodynamic properties and therapeutic uses; (3) to collect the knowledge of materia medica products, reduce it to law, embody it in system and publish it for the benefit of science; (4) to aid the manufacturers of materia medica products and preparations who conform their goods to recognized standards in the introduction of their brands to commence by advocating that the medical profession in prescribing shall specify those brands that are marketed under the guarantee of such a bureau, and are thus shown to comply with scientific and professional requirements.

CERTIFIED MINERAL WATERS.

Dr. C. W. Chancellor, of Washington, D. C., contributes an article on mineral waters to *American Medicine,* concluding as follows:

"In collecting and dispensing mineral waters the utmost care should be taken to preserve the gases and prevent decomposition of the chemic constituents. This can only be accomplished by bottling the water at the spring. A quart or half-gallon bottle will answer the purpose. Care should be taken to have the vessel thoroughly clean; the cork should be new and clean, and fit well. The bottle should be plunged into the water with the mouth well under the surface. Fill to the neck, then insert the stopper, previously well soaked in hot water, and cover with a piece of clean muslin, wash-leather, or gutta-percha tissue, tie securely and seal.

"Barrels, carboys, demijohns and jugs are to be avoided; water should never be decanted from one vessel to another. In filling bottles, unless at the spring, the gases unavoidably escape, the chemic ingredients become decomposed and, what is worse, the water is exposed to the influence of the surrounding atmosphere, often contaminated and filled with spores, germs and other low forms of life, which find their way into the water and cause disease among those who drink it. Under no circumstances should bottles be refilled until they have been thoroughly cleansed and sterilized by washing them with strong sulphuric acid, followed by ordinary pure water, until there is no longer any taste of acid, and finally rinsing them with some of the water to be bottled. All this, however, should be performed at the spring.

"No one who has paid any attention to the subject could fail to observe the incredible filthiness which is too often practised in handling empty mineral water bottles. The uncorked, empty bottle, for which a rebate is allowed, is sometimes disposed of to junk dealers, or temporarily stored in some filthy cellar, outhouse, stable, bathroom, water-closet, or it may be in a room infected with dangerous micro-organisms. In this way the bottle becomes filled with bacteria, which are omnipresent in the air of such places, and once having entered the bottle they can not be displaced by ordinary rinsing. It has been observed, moreover, that returned bottles sometimes bear unmistakable evidences of having been used for very uncleanly purposes.

"To ensure safety, no bottle should be refilled except at the spring, and after having been thoroughly sterilized. A new and fresh bottle is, of course, to be preferred. The bottling should be done in the presence of a responsible officer, who should affix his seal of office to each bottle. Certainly a compulsory system of inspecting mineral waters might be inaugurated, after the fashion of milk inspection in many cities.

"In 1893 the term 'certified milk' originated in New Jersey. A commission was organized with the view to ensure milk properly prepared and properly handled; buildings were required to be well constructed, drained and ventilated, and the milk kept apart from all sources of contamination. Cows were required to be handled by milkers with clean overalls and clean hands; the milk packed in glass jars, thoroughly cleansed and sterilized, and hermetically sealed. These jars are then labeled 'Certified Milk,' and no other milk is allowed to be sold. Why should we not also have our mineral waters inspected and labeled 'Certified Water?' "

REPORT OF A CASE OF BUBONIC PLAGUE.*

By E. L. WEMPLE, M. D.

PLAGUE is a very virulent, infectious disease, caused by a specific organism which results in the formation of one or more buboes, or in the development of a virulent form of confluent pneumonia. Two varieties are commonly known; the bubonic and the pneumonic; in the former buboes occur in the femoral, inguinal, axillary, tonsillar and cervical regions; in the latter there are no buboes, but the septic process manifests itself in the mesentery, the gastro-intestinal tract, the lungs, kidneys and the brain.

This disease is supposed to have existed as early as the second century of our era. In the seventeenth century it raged in London, and in the present century there have been epidemics in China and India. William Osler says the endemic centers of the bubonic plague are in Tripoli, southwestern Arabia, a large section of Asia, comprising Mesopotamia, Persia, and Kurdestan; the districts of Koauman and Gurwhal in northwestern India, and southwestern China. In 1893 Kitasako described the bacillus pestis (which he found) in the blood. The bacillus described by Yersin differs slightly from that of Kitasako.

C. A. Viegas was the first to report the outbreak of bubonic plague in Bombay, in 1897. He believes that the disease is due to, or at least favored by, the accumulation of sewage filth; that the predisposing causes are warm climate, poverty and youth.

Following this report is the investigation of the disease by the Plague commission of the Imperial Academy for Sciences of Vienna, and as a result of their work they recognize two varieties, the bubonic form and the pustular form. In both of these varieties the swollen glands may undergo resolution or suppuration with or without the development of general septicemia; the true septicemic forms commencing with high fever, delirium and collapse; the pneumonic form commencing with chills, rapidly increasing dullness in one or more lobes of the lungs, and serous, white or rusty sputum, and is to be distinguished from croupous pneumonia by the extreme prostration and a considerably enlarged spleen.

A. H. Doty considers that the short period of incubation of plague (5 days) is the greatest safeguard against its introduction into any country where the disease does not exist. The virus may, however, be transmitted by clothing, articles of merchandise, etc. Small animals, particularly rats, die during epidemics of plague. This fact has suggested that the specific organism discovered by Kitasako and Yersin might be of telluric origin. Whether this be the case or not, there is much evidence in favor of the contention that plague is a soil-bred and supported disease. Although small animals, flies and fleas, die of this disease or may spread it, it is more logical to conclude that unsanitary conditions favor its spread.

The disease is ushered in with a chill, the patient reels like a drunkard, owing to marked vertigo, and complains of headache and lassitude. This is apparent in the features, markedly the drooping eyelids. This apathetic air and the indifference to surroundings constitutes the *facies pestis,* so aptly described by Viegas, who lays great stress upon the physiogomy of the disease, which he describes as that of a person who has been taking hypnotics for persistent insomnia, without obtaining sleep. According to Bullard, the tongue is swollen, shows the impression of the teeth, and is covered with a white fur resembling mother of pearl. In the bubonic form the bubo appears in the first few days. It is most frequently in the groin, next axilla and the neck. The neighboring tissues become tumefied and edematous; the pulse often slow at first, soon becomes small and rapid; delirium and excitement now appear, and often the patient must be tied in the bed. Physical disorders are manifest, and speech is disturbed. The bubo occasionally suppurates or becomes gangrenous; carbuncles and extensive petechiæ (plague spots of old writers) often occur.

On Monday, 11 a. m. October 27th, 1902, I was called to see Arthur W. Caswell, at 409 Turk street. He was 33 years old, married, a clerk in a furnishing store on Third street, and said to be dissipated in his habits. During the two weeks prior to his illness he had tried on new clothes for as many as a dozen soldiers who had just returned from Manila. I found him suffering from backache, stiffness of the limbs, a feeling of anxiety and restlessness, and great systemic depression. The tongue was brown in the center, with red margins. He refused all food, was nauseated, and had been vomiting. The bowels had moved several times in the three preceding days. The patient dated all his illness from the night of the 24th of October, and says a tumor came down while at stool. From this time on he felt the tumor in the right groin, and the pain soon became intense. I found him with a pulse of 96, respiration 30, temperature 103.8. The tumor felt like a large mass of swollen glands in the femoral region; but as there was another

* Read before the Academy of Medicine, San Francisco, at the Regular November Meeting, 1902.

above Poupart's ligament I was in doubt as to its true nature, and advised that he be taken to the hospital, where I would remove the mass; and at 1:30 p. m. on the same day, October 27th, I operated, and cutting into the tumor found it to be composed of large lymphatic glands, many of them hemorrhagic and not unlike placental tissue in appearance. There was an edematous condition of the skin and underlying structures from which oozed a glistening serum. I dissected out the glands from the pubic portion of the fascia lata, when I found that the swollen chain extended up into the pelvis. I then suspected that it might be a case of bubonic plague, and had the patient quarantined in a room.

Dr. Wemple, Jr., made a smear that afternoon, and the picture was very much like that of the disease. This smear was shown to Dr. H. A. L. Ryfkogle, and it was his opinion that it contained bacillus pestis, there being a diplococcus infection as well. He said the inoculation of a guinea pig from the contents of a gland and its death from plague was all that was necessary to make a positive diagnosis of bubonic plague. This was subsequently done by Dr. M. J. White, of the United States plague laboratory, and the diagnosis was bacteriologically confirmed.

Before operation the temperature was 104, pulse 94, and respiration 34. At 8:45 p. m., or five hours after the operation, the temperature was 103, pulse 96, respiration 36. The pain was less severe, in fact he was very easy much of the time, though he complained of being chilly. One-thirtieth of a grain of strychnine was given every four hours. At 10:15 p. m. the temperature was 104.8, and one hour after 60 cc of Yersin serum was given it dropped to 101.8, pulse 94, and soft. From this time on till 2:45 p. m. October 28th, his temperature did not rise above this mark, and the pulse became slower, but weaker.

The general condition seemed to be better in every way. The anxious expression and restlessness were much lessened.

The following record is taken from the City and County Hospital, where the patient was removed and quarantined October 28th, 1902:

October 28th.—During the day the temperature ranged from 101 to 101.5 with pulse of 98. He was very restless and nauseated, but did not vomit, nor did he sleep. 20 cc of Yersin serum were given, and 2 ounces of whiskey. He voided six ounces of urine.

October 29th.—Temperature ranged from 102.2 to 102.5; pulse ranged from 98 to 125; respiration from 24 to 32. Slept half an hour. At 12 m. he became delirious. Up to this time he complained of great pain in his back and abdomen. 20 cc of Yersin's serum and two ounces of whiskey were given. At midnight he was so delirious that he had to be held in the bed.

October 30th.—Temperature 102.3-5 to 104; pulse 108 to 120; respirations 30 to 34. At 4 p. m. he was delirious and sweating profusely. Forty cubic centimeters of Yersin's serum given. At 11 p. m. 20 cc of serum given intravenously in each arm; after this, 80 cc more were given with no effect; still delirious and no sleep. One-thirtieth of a grain of strychnine was given, 18 ounces of milk and one egg.

October 31st.—Temperature 104.4-5 at 2:30 a. m. Pulse 150, respiration 30. At 8 a. m. the temperature was 102 2-5, pulse 110, respiration 30. This was after 60 cc of serum had been injected and the bowels moved with calomel. Three-thirtieth of a grain of strychnine was given from 2:30 a. m. to 8 a. m. At 12 m. the temperature was 104 2-5, pulse 130, respiration 32. One-tenth of a grain of strychnine and one fiftieth of a grain of atropin were given between 12 and 5:50 p. m. He became unconscious at 5:30, and at 5:50 his temperature was 108 2-5, pulse 170, respiration 43. 20 cc of serum were given. At 6:15 he died.

I am indebted to Dr. Howard Morrow, City Bacteriologist, for the following report of his investigations:

"Smears from the iliac and lumbar glands showed no organisms. Smears from the spleen showed a few pest-like bacilli. Pure cultures were obtained from these organs. A pig was inoculated by the skin method with a gland removed at the time of the operation, and he died on the sixth day. The post mortem findings were characteristic of plague. Pigs were inoculated with pure cultures and died in the usual manner. Cultures and sub-cultures from the human spleen and from the pig's spleens grew characteristically on the various media; culture tubes inoculated with blood from the ear during life failed to grow colonies. Cultures from the wound the day following the operation showed a mixed infection of pest bacilli and pus cocci."

Diagnosis—Bubonic plague with secondary involvment of the lungs.

Through the courtesy of Dr. Morrow I am able to give you the following report of the autopsy as made by Dr. M. J. White, of the United States plague laboratory:

"The ilac and lumbar glands on the right side were enlarged, injected and contained areas of hemorrhages. Some of the glands were broken down, the surrounding tissues being edematous and herorrahgic. The edema extended as high as the right kidney. The spleen was normal in size, its capsule being wrinkled and the pulp very soft. The hypogastric glands were necrotic, but not hemorrhagic. The lungs besides being somewhat edematous posteriorly contained a few small areas of consolidation in the middle lobe of the right lung. The heart showed an acute

myocarditis. The ureters and supravenal capsules appeared normal. The glands of the axillæ and the left inguino-femoral region were slightly enlarged and showed corticle hemorrhages."

REFERENCES.

The American Year Book of Medicine and Surgery—(Gould), for the years 1896, 1898, 1899, 1900.

Pathological Anatomy and Hisotology by Delarfield and Pruden, William Osler, Ed. 1899.

Sarjous' Annual and Analytical Cyclopedia of Practical Medicine, Vol. 5, 1899.

Lehmann's and Neumann's Bacteriology, Vol. 2, 1901.

James Cantlie, in the International Medical Journal, 1901.

Bacteriology, by Dr. Howard Morrow.

Post Mortem notes by Dr. M. J. White.

CALIFORNIA ACADEMY OF MEDICINE.

REGULAR MEETING IN NOVEMBER.

The regular monthly meeting of the California Academy of Medicine was held at the offices of Dr. Harry M. Sherman on Tuesday evening, November 25, 1902.

The following papers had been announced to be read before the Academy:

"Changes Noted in Renal and Perirenal Tissues, Following Decapsulation of the Kidney of the Dog," with exhibition of specimens, by Harold Johnson, M. D. (by invitation).

"A Case of Plague," by E. L. Wemple, M. D. (by invitation).*

"Persistent Glossitis in Secondary Syphilis," by D. W. Montgomery, M. D.

"On the Denudation and the Suture in Repair of the Perineum," by G. B. Somers, M. D.

In the discussion on Dr. Wemple's paper, Dr. Harold Johnson asked what diagnosis had been made before the operation. Dr. Wemple replied that no definite diagnosis had been made.

The President, Dr. Montgomery, called attention of the members to the great importance of the paper under discussion. He stated that plague cases had been found in five hospitals in the city, and there was no doubt that eventually it would appear in every hospital in San Francisco.

Dr. J. Henry Barbat said that he had seen the patient a few hours before the operation and made but a casual examination. He ran his hand over the swollen glands and found they were very tender. He made a snap diagnosis, based on previous experience, of a possible hernia containing a perforated appendix. That infection was present was evident from the appearance of the skin.

Dr. Rixford asked if the patient had vomited before the operation, and if his bowels had moved. Dr. Wemple replied that the patient had vomited several times, and that the bowels had moved prior to the operation. He did not consider it could be a case of plague, for the man had said he had not been in Chinatown for months. He further said he had not known that plague had got outside Chinatown.

Upon being requested to speak to the question, Dr. Glennan of the United States Marine Hospital Service, who was present, replied that owing to the fact he was in the city on official business connected with his department he did not feel at liberty to give any expression of his opinion on the subject.

Dr. Montgomery said that in his opinion plague had come to San Francisco to stay; that we would have to accept the situation and work with an understanding that such is the case. In his opinion it was the price we are called upon to pay for the Oriental trade.

Dr. Wemple, in closing the discussion, said the President and himself seemed to be the only two physicians present who were willing to freely discuss the question. It was the first case of plague he had seen, and he had not previously devoted much time to studying the published literature on the subject. He considered it the duty of every physician to at once thoroughly post himself on the subject of the disease, as he might encounter it at any time.

In the discussion on Dr. Johnson's paper, Dr. Tait gave a resume of the work along this line done upon a rabbit by Alberson. He highly commended the work done by Dr. Johnson, and urged that he should continue his investigations. All of this experimental work seemed to show that the claims made by Edebohls could not be substantiated. He thought the tendency of surgeons to enter upon the field of the medical man, without cooperation with the pathologist, was decidedly wrong.

Cases Presented—Dr. Harry M. Sherman presented a patient who had suffered for several years from trigeminal neuralgia of the left side, mainly confined to the third branch. For several years he had taken everything recommended to him, but, as usual, without relief. He was first seen by Dr. Sherman a year ago. Operation was recommended at the time, but was rejected. One month ago the patient returned, having decided to undergo the operation. Dr. Sherman said the operation resulted in a complete therapeutic success. He started to do Frazer's operation, but when the bone was cut into hemorrhage was profuse, and the operation was long and tedious. It was often necessary to pack the flow and wait for ten or fifteen minutes at a time. He saw the ganglion vaguely, on account of the profuse hemorrhage from the very adherent and thickened dura. The ganglion was removed, the wound packed, latter sewed, and the result satisfactory. The patient had no subsequent neuralgia. The region of the third nerve is now anesthetic. He did not remove the zygoma, as

* Dr Wemple's paper will be found in full on preceding pages of the *Journal*.

recommended by Frazer, for it was unnecessary. Profuse hemorrhage was the only obstacle in the operation.

Dr. Sherman said that Dr. Newmark, who was not present, had reported to him that the ganglion showed round celled infiltration.

The second case was presented by Dr. Emmet Rixford. The patient was a boy who had been operated upon five years ago, when almost moribund. At that time there was a very bad Pott's disease and a bad tuberculosis of the right hip. Three inches of the femur was removed, together with practically all of the ascetabulum and much of the ischium. The result was very good. The boy has active flexion of nearly 90 degrees, can ride a bicycle, ride horseback and walks fairly well, with the use of a cane. Lately he has had some pain in the lower dorsal region and has returned to his crutches.

In the discussion of this case Dr. Sherman said that the amount of motion resulting was worthy of comment, and that Dr. Rixford should be congratulated upon the result of the operation. He considered it a general principle that in operations on tuberculous bone the surgeon should go as far as the tuberculous bone and the life of the patient would permit. Several times he had removed the whole of the osteomata without removing the limb and combining amputation with the removal of the osteomata. The patients died. He suggested that the use of a patent extension shoe might be of advantage.

Dr. Rixford said he had not attempted more than a resection of the hip; that he could not say how much of the bone tissue had been removed, for he had curetted all the tuberculous bone he could find.

Dr. Sherman said it was possible to remove a great deal of the shaft of the femur, but that the new bone growing from the periosteum did not keep the tubular shape of the bone, but was flat and weak.

Dr. Hunkin said he had discussed the relative advantages of excision and amputation with Dr. Sherman and they did not agree. He had recently amputated a leg and found the femur entirely disorganized. At the ankle joint, or just above, the bone was so soft that it could easily be crushed with the fingers.

Dr. Sherman said the bone may be very soft, but not necessarily diseased, and many patients recover when all the diseased bone had been removed.

Dr. Rixford presented a patient upon whom he had performed a bloody reposition of an old luxation at the elbow. He cut off the olecranon on the ulna. Subsequent X-ray examination showed that he had not removed sufficient new material, which had filled the olecranon fossa. A subsequent operation had corrected this difficulty to a considerable extent. He expressed the opinion that the cosmetic result was desirable when this condition is encountered in women, but that in case of a workingman the mechanical result is desired and resection is to be preferred.

Dr. Rixford also presented a patient of whom he had spoken at the last meeting of the County Medical Society, where he had shown X-ray photographs. The case was one of supracondyloid fracture, in which there had been considerable rotation of the fragments.

In the discussion Dr. J. Henry Barbat said in fractures and dislocations at the elbow that are not reduced within twenty-four hours he considered it best to cut down upon the joint and remove the new material poured out into the joint. In operating upon the elbow for old injuries the mistake usually made was not to take out enough new tissue.

Dr. Sherman did not agree with Doctors Barbat and Rixford in the necessity of reoperating for the removal of more tissue from the sigmoid cavity. While these cases generally show little or no motion at the time the splint is removed, the amount of motion increases with the passage of time.

Dr. Rixford said there was a great difference between the treatment required for children and that suitable for adults. In children the result might be considered as generally good.

Dr. Sherman said the reason for rotation of the fragments when a supracondyloid fracture is dressed in extension, is probably due to the fact that the arm offers nothing firm to hold the dressings, and that in moving the hand or forearm the fragments might easily be rotated. He had abandoned the practice of dressing this condition in extension.

Owing to the lateness of the hour, after Dr. Somers' paper was read the meeting adjourned. The reading of Dr. Montgomery's paper was postponed.

DEATHS.

Dr. William T. Garwood, for upward of thirty years a physician of San Francisco, died at St. Luke's Hospital on November 21st at the age of sixty-five years, leaving a widow and three children, two daughters and a son. He was a native of Philadelphia, but almost his entire professional life was passed in this city. In early days he was the resident physician of the City and County Hospital, when that institution was located at North Beach. He was the first Superintendent of the Almshouse, and served one term as Coroner of San Francisco.

Dr. James F. McCone died on the 7th inst. at his residence, 1132 Sutter street, San Francisco. Tubercular disease of the hip was the cause of his death. He graduated from Santa Clara College in 1889, from the Royal College of Surgeons, London, 1894. He was on the staffs of the French Hospital, City and County, and Mt. Zion. He was also a member of the State Board of Medical Examiners.

POINTS IN THE MANAGEMENT OF CLEFT PALATE CASES, BEFORE, DURING, AND AFTER OPERATION.*

By HARRY M. SHERMAN, M. D.

Professor of Surgery, Medical Department University of California; Surgeon to St. Luke's Hospital, and Orthopedic Surgeon to the Children's Hospital.

SEEMING trifles may often count for much in a general proposition, and that is my reason for presenting to you *in extenso* the details of the method I follow in the management of a cleft-palate case. There is, I am sorry to say, nothing particularly new and nothing original; but the technic, if it can be called that, has been worked out through failures and disappointments, and has lately given me some satisfaction, and therefore I bring it to you.

I do this particularly because there is, in American and English text-books, a general dearth of instructions, save for the operative work itself; and unless one has seen others work, or has carried out the after-treatment as assistant or interne, he may be in the position of having to operate upon his first case without much experience and with but vague ideas on points that are, I am sure, important. Since this paper was written I have found in Terrier, Guillemain and Malherbe's *Chirurgie de la Face* a most excellent chapter on the subject of urano-staphylorrhophy and can recommend it to any one who is interested in the subject.

The management, which is the subject of this paper, must begin some time before the operation itself, and is then concerned with the preparation of the patient; it also refers to certain points of the operation which make the procedure easier and shorter; and it is intimately related to the whole period of the healing process, at the end of which you may, if you are fortunate, register a success, or if you are unfortunate and have stitch after stitch tear out and much or all of the suture line fall open, you may have scored only a partial or a total failure.

The preparation of the case consists in getting the throat in the best possible order, and in training the child patient to submit to and even aid in the manipulations which are necessary to keep the parts clean. For the proper accomplishment of this last, the child must be taken from the parents and put in the care of a special nurse. This woman must then begin gently but firmly to spray the mouth, fauces and nose with perfectly bland solutions—salt solution, for instance—so that the spray itself, as a spray, ceases to be a source of terror. At the same time the tonsils and edges of the cleft in the palate receive applications of the solution and the child is taught to open the mouth widely and to submit readily to the manipulations.

I have found that many of these children have tremendous amounts of adenoids in the pharynx, and if this pertains in any case I ask my colleague at the Children's Hospital, Dr. W. E. Hopkins, to take charge of the child during this preliminary period and thoroughly clean out the lymphoid tissue from the pharyngeal vault. It is easy to make this a complete operation, because the open cleft permits one to see into every part of the pharynx. Finally, if there are any bad teeth, the child is referred to Dr. Beard, the dentist of the Hospital staff, to have them filled, cleaned and put in thorough order.

All of this may take nearly a month, but it should bring the child to the operation with a clean nose, mouth and pharynx, and with no fear of the handling which is so important in the after-treatment.

For the operation, chloroform is the preferable anæsthetic, given either by the modified Junker apparatus, which is used by Dr. Botsford, or on a very large Esmarch mask. Over the child's eyes pads of gauze or cotton are put, then a rubber-dam bathing cap is drawn on the head, covering the hair, the eyes, the ears, in fact, all of the head and face except the part that you need to work on. It is an immense comfort to have the hair, in these cases, so fixed, as in this cap, that it cannot get in your way. Next the child is swathed in a sheet and a snug bandage is put around to fasten the arms to the sides, so that a hand can, by no possibility, get loose. The child is finally put supine on a low operating table, with the head hanging over the end, and a second bandage is put around table and child, so that no squirming or other motion may be permitted. The operator sits at the end of the table and his height is adjusted in such a way that he can take the child's head between his knees. Now, men have no laps in the sense in which women have, so to make up for the deficiency in this respect I lay a towel, folded lengthwise, across my knees and let it dip down between them enough to pass behind the child's head. The ends of the towel are then firmly pinned to my trousers on the outer side of each

*Read before the San Francisco County Medical Society, Tuesday evening, November 11, 1902.

knee. In this way the head is in a hammock and at the same time is between the knees where it can be gripped. By raising either knee the head can be rolled in the opposite direction, and this is of use frequently, especially in placing the posterior sutures in children with small mouths. The position is practically that of Rose of Berlin and has the advantage in particular of keeping the larynx and throat free of blood.

The next step is the introduction of the gag, and I wish to say a little about gags. Here, as elsewhere, in surgical instruments, simplicity is a merit. Of the two gags I show you, [At this and at other times Dr. Sherman presented for examination the various instruments to which reference was made] one is an ordinary Whitehead (Fig. 1), stripped of all the tongue-depress-

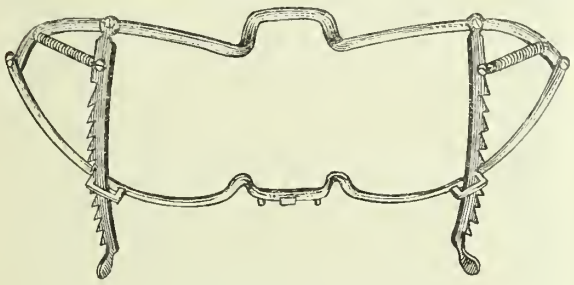


Fig. 1. (About two-thirds actual size.)

ing accessories. The other (Fig. 2) I got at Mathieu's in Paris, but I do not know who designed it. It, too, has had some tongue-depress-

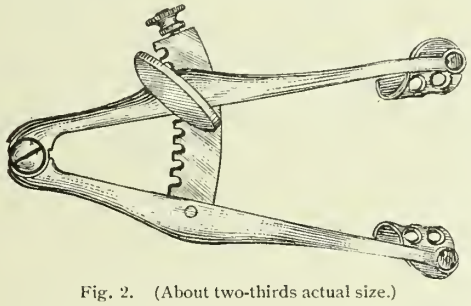


Fig. 2. (About two-thirds actual size.)

ing plates removed from it. The objection to the parts which depress the tongue is that they crowd that organ down on to the larynx and shut off the

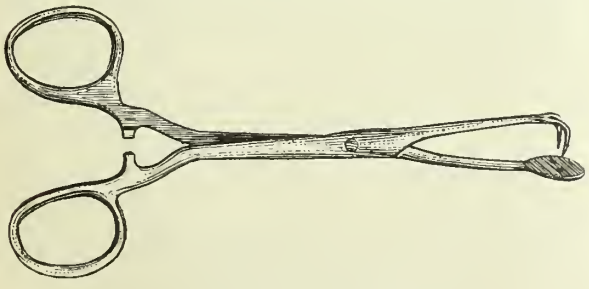


Fig. 3. (About two-thirds actual size.)

respiration. In their place I use a two-prong tongue forceps (Fig. 3), which holds the tongue perfectly, does not pinch or contuse it, and leaves practically no wounds. A silk stitch, making a suspension loop in the end of the tongue, will answer the purpose equally well.

Before any operative work is done in the mouth the sides of the cleft, the vault of the pharynx, and all of the parts that are in sight are thoroughly swabbed with Adrenalin, in the strength of the original package. This materially lessens the amount of bleeding and diminishes the secretion of mucus, and while the operation cannot be made absolutely bloodless, it can be made much less bloody than without this drug. Its use is, I am sure, a distinct advantage.

The operation which I have almost always done is that evolved by J. Roux, J. Mason Warren and Trelat, and called by the latter uranostaphylorrhaphy. It is to-day the classical operation and does not need a detailed description at my hands. In brief, it detaches from the hard palate sizable flaps of mucous membrane and periosteum, each the width of the space between the cleft and the base of the alveolar process, and never, according to Trelat, less than one centimeter wide, and always preferably wider. These flaps, detached in the middle and attached at each end, are slid toward each other in the median line, where they are sutured, thus closing the median gap, but leaving two lateral gaping incisions. These lateral, open, incised wounds are inevitable, but they are always packed with gauze, are easily kept clean by a little care, and invariably heal properly by granulation and so are no real detriment.

The sliding flaps present, in their new situation, after suture, a mucus surface in the mouth which is satisfactory; but in the nose they present a periosteal surface, which is exposed continually to the inspired air and cannot help becoming infected, the amount and character of the infection and the reaction of the child being two important quantities in the equation which represents the chances of a satisfactory healing.

Sometimes I have tried the exceedingly ingenious method of Alexander Hugh Ferguson of Chicago, by which no tissue is sacrificed in paring the cleft, and which leaves mucous membrane in both nose and mouth. His first incision, copied after Mr. Davies Colley, turns up from the buccal side of the edge of the cleft a long narrow strip all the way around the opening, and this is turned up into the nose and sutured, side to side across the cleft, closing it and forming a mucous floor for the nose.

This suturing is done with fine silk, the sutures being expected to slough out and be expelled. It is in this respect that the operation fails, so far as I have observed it in my own hands. In each instance in which I have tried it the sloughing suture infected the whole suture line and all of my

work sloughed out, reproducing the cleft. The rest of Ferguson's operation is practically after the classical method.

There are certain instruments which may be mentioned here. Two knives are useful, one a short, narrow, slightly curved, sharp-pointed blade on a long shank, to pare the edges of the cleft. It must be very sharp to pare straight to the tips of the halves of the uvula. The other should be a short, strong blade, with a straight edge and sharp point, also on a long shank, for the lateral releasing incisions. Two periosteum elevators, curved both on the flat and on the edge, and made rights and lefts, are useful to separate the muco-periosteal flaps, and a straight one is needed to work backwards and separate the soft palate from the palatal process of the palate bone. The instruments I show you are

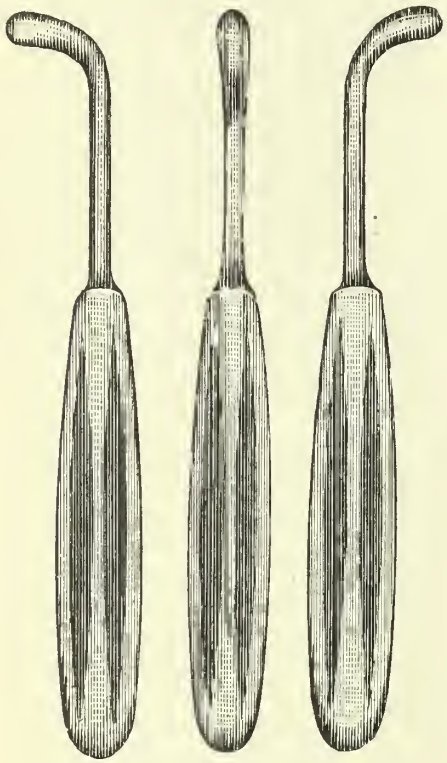


Fig. 4. (About two-thirds actual size.)

larger than they need to be for this work, but are not, however, too large for it. (Fig. 4.)

The suturing permits an operator to consult his own preference. It may be done with short, fine, full-curved needles in an ordinary needle-holder, and then I use a holder without a catch, so that there shall be no jar in releasing the hold on the needle, or, one may use the needles on handles which I have known as Goodwillie's, but which also bear the name of Durham (Jacobson's "Operations of Surgery."). These are made to use in the right or left hand and will meet almost any sutural contingency. Personally I like exceedingly the sharply curved needle of Trelat in a handle (Fig. 5), and with it do all of the work in the anterior two-thirds of the cleft. These needles in handles may be armed with the suture before being introduced through the sides of the cleft, or they may be armed while in the tissue; but the description of the intricacies of the manipulations, which are really not great, would be out of place here. A word may be said, however, about suture material. Silk should be mentioned only to be condemned. I have tried forty-day chromicized catgut, but did not care for it. Silver wire is too stiff for the very delicate tissue of the flaps. Fine silkworm gut, boiled to make it pliable, is excellent; but coarse horse hair, I just now think, is better. In tying the horse hair, however, three knots must be made to prevent slipping. This suture may be left in the tissues almost as long as one wishes, and is all the time an absolutely unirritating substance.

Fig. 5. About two-thirds actual size.

Now, the surgeon who has done one of these operations up to this point, and has done a workmanlike job, closing the cleft with no strain on his flaps and no unnecessary bruises of the tissues, has just begun the real task. Under any circumstances he must leave his wound open to the air, ready to be infected with any organisms in the nose above or the mouth below or the throat behind the mouth. I have worked very hard at this proposition, and have many times had to sit down on the third, fourth or fifth day and see staphylococcus take complete possession of the field and undo most or all of what I had accomplished. This is a case where antiseptics are demanded. Asepsis is impossible. The thing I had to find was an efficient antiseptic that would not injure the tissues. Again, the antiseptic can be applied only to the buccal surface of the incision, for the nose will not tolerate sprays of efficient germicidal strength, and swabbing in the nose is not practical. Borca, of Paris, uses in the mouth a one per cent solution of chloral hydrate, but children cannot stand it sprayed into the nose. I have been obliged to content myself with Dobell's solution—the real Dobell's, with carbolic acid—and have made up in quantity for its deficiency in quality, using it freely and often. To this the child who has been trained submits with but little protest.

In the mouth I have used, and still use the one per cent chloral solution as a spray, but it is not efficient against the staphylococcus, once that is implanted in the soft tissue which is bridging the space between the flaps. Touching the line of suture with tincture of iodine once a day has sometimes been a satisfactory method, but more

often it has failed, for the saliva and mucus of the part prevented the drug reaching the deeper levels. Pure carbolic acid may be lightly touched along the whole line of the wound twice a day, and is not bad, but it somehow still leaves something to wish for. The stearate of zinc, insufflated into the mouth, with the hope that it would keep the parts comparatively dry and so lessen the likelihood of infection, was a failure; and Dobell's solution, to which I was restricted in the nose, was of no use in the mouth. Finally, I learned from my colleague, Dr. W. E. Hopkins, to use a two per cent solution of salicylic acid in alcohol as an application in cases of staphylococcus and streptococcus tonsilitis, and it did well enough to make me try it in my cleft palate work. The effect has been exceedingly good, and I have gotten in four consecutive operations results which I expected only once in a long time. Of these cases, one child had had four total failures and the fifth operation was a complete success, though the uvula had to be left unsutured because of the small mouth and narrow fauces. The room was so cramped that when the tongue was pressed down to give a practical space, it pushed the epiglottis down over the larynx, closed it and stopped respiration.

In the second child all but a very little at each end of the total cleft, which was closed in its whole length, healed at once, and the little gaps were easily closed at secondary operations.

The third child had a florid scarlatina develop the third day after the operation, but the palate healed perfectly in spite of it.

The fourth child became infected, but the infection receded and all healed except a small opening at the anterior end. This is now closing under pure carbolic acid on the edges twice a day.

Both the chloral solution and the salicylic acid in alcohol are germicidal, but there are other measures which can be taken to have auxiliary action and which are of value. One such indication is to keep the mouth dry, and this is done by the use of atropin, in dose proportional to the age and reaction of the child, and given hypodermically. Another point is to keep the child quiet, and especially to prevent crying, and for this morphine is used, enough for the purpose being given, also hypodermically, and with the atropin.

Pressure of the tongue against the newly sutured palate is to be avoided, so the child is not fed by the mouth, but by the rectum. The absence of food or food remnants from the mouth is a measure of cleanliness of definite value. But rectal alimentation is not enough to supply all that the child needs for maintenance, growth and repairs; so at the end of three or four days fluid feeding by the mouth is begun—milk being the food—and the rectal alimentation is abandoned.

As regards the intervals for the applications. Dobell's solution is used in the nose every two hours, night and day for the first few days, and after that at longer intervals. The chloral solution is used in the mouth at the same times. It is important to remember here that the staphylococcus does not care for the day or night, and the treatment must never be omitted because of darkness. The salicylic acid in alcohol is used on the line of suture in the mouth twice or thrice a day. The packing of the lateral incisions is changed every day or every two days, and the new packing is saturated with the salicylic acid and alcohol. The atropin and morphine are given by the interne in charge of the case in accordance with the indications, every four, six, eight or ten hours.

I beg to anticipate the charge that this is too complicated. I acknowledge that it is so; but each thing has, in my mind, at present at any rate, a definite purpose which it serves. When the time comes that I believe it possible to dispense with any one, it shall go, and both the child and I shall be glad to get rid of it—and the first to go shall be the chloral solution.

I append a little tabulation of the results of these operations. No case was a cleft in the soft palate only. All included clefts in the bone, varying from one-third to two-thirds of the length of the bony palate. Two were complete clefts, with associated harelip, the latter having been operated upon before the case came to me.

In all there were thirteen patients, and twenty-six operations were done:

Three patients had each one operation, resulting in success.

Four patients had each two operations, resulting in final success.

One patient had three operations, resulting in final success.

One patient had five operations, resulting in final success.

One patient had two operations, resulting in one-third success.

One patient had one operation, resulting in partial success.

One patient had two operations, resulting in failure.

One patient had two operations, and died from convulsions, from which he had previously suffered, the day after the second operation.

All of the successes were by the ordinary method of urano-staphylorrhaphy. Not one operation done by Ferguson's method succeeded in my hands. The average age of these patients was between four and five years.

The citizens of Vancouver, B. C., are raising funds with which to erect a general hospital. Fifteen thousand dollars has already been subscribed.

The graduate nurses of Seattle are forming themselves into a permanent organization, one of the objects being to maintain a bureau where their services may be secured at any time.

SUTURING OF MUSCLES AND TENDONS.*

By D. D. CROWLEY, M. D.

Professor of Principles and Practice of Surgery and of Clinical Surgery, Oakland College of Medicine and Surgery, Oakland, California.

THE subject which I have to-day introduced to you may not elicit as much interest as many that have preceded it on occasions like this. The invasion of the surgical field, during the past decade, has been prosecuted with unusual vigor and the most remote parts of the human anatomy have been visited by the surgeon's knife. I am inclined to think that the unusual surgery has crowded aside that which is commonly met with, and the technique of ordinary work is greatly neglected.

There is but little danger to life in the surgery of tendons and muscles, but it is a work that requires a definite knowledge in order to effect the continuity and to re-establish a usefulness in these structures, and in this reference the medical literature of the day is sadly wanting.

I have given some little attention to this subject, but the results of my researches have thus far been unsatisfactory, and I have come before this assembly of professional confreres not altogether satisfied with the work I have undertaken.

When a muscle is divided there is immediate retraction of its fibers. The more active and the stronger the muscle, the greater the separation of its divided ends. This is well marked in the flexors and extensors of the thigh, of the arm, and muscles of the shoulder and hip. In rupture of the rectus abdominis there is frequently a separation of from one to two or more inches. When the ends of the divided muscle are permitted to remain widely apart during the repair, the new material, which fills the space, has little or no contractile power; it is merely a cellulofibrous material and almost tendinous in appearance and to the touch. The muscular fibers that have contracted toward their muscular attachments have adhered to their sheath and are practically useless.

In wounds of the abdominal muscles, where the same fibro-cellular material tries to effect a muscular compensation, the pressure outward of the abdominal contents elongates and attenuates this reparative material, and at last the muscular deficiency permits a complete hernia to take place —a condition that sometimes follows a laparotomy where the wounded tissues have not been carefully opposed.

The rupture of a muscle generally occurs where the muscular fibers meet the tendon; but in a few instances is situated in the body of the muscle. The laceration of a muscle may be in a few of its fibers or in the entire thickness of one muscle or several muscles.

In the usual rupture of large muscles the conditions are so well defined that only a cursory examination is necessary to determine the condition of the part. It results generally from sudden and violent muscular exertion; and while this condition may take place in a trained athlete, it is more apt to occur in those who are not used to muscular exercise.

In my experience I have observed that persons of sedentary habits have more frequently experienced this injury than the trained athlete, and in my surgical attention to the football team and to the Athletic Association of the University of California for three consecutive years, I have observed rupture of the muscle only in the beginning of the training period. It may be stated that nearly all serious injuries to athletes occur in their early training. The pugilist scarcely ever experiences rupture of muscle or tendon, and this is owing to his superior training in the commencement of his work.

The rupture of muscular fibers is not always a result of extreme muscular exertion. I have known it, in several instances, to result from direct violence. In one instance the knee of one person violently struck the thigh of another and ruptured the quadriceps extensor of the person struck. In another, direct violence caused a partial rupture of the deltoid, and in another the gastrocnemius. In one instance a large dog collided with a person standing on the sidewalk; the dog's head striking the femoral biceps. The person fell to the ground and was thereafter unable to stand, the ruptured muscular ends being several inches apart. It may be said almost with certainty that the rupture of a muscle taking place at the point of impact is due mostly to direct violence.

In all cases of ruptured muscle there is a separation of the ruptured ends. The physician can usually discern the well defined muscular ends, especially in long and important muscles with a well defined depression between. These signs, however, are frequently masked within a few hours after the injury by a considerable hemorrhage which results in a tumorous mass. This tumor can be removed by incision, drainage and pressure, and after its removal an interval may be felt between the torn ends. If this bleeding is permitted to continue, without opera-

* Read before the Medical Society of the State of California, at the annual meeting, held in San Francisco, April 14-17, 1902.

tive interference, a free separation of the muscle takes place and a tumor of coagulated blood follows that will cripple the limb for months: sometimes permanently. The condition can, in a few weeks, be remedied by incisions and drainage. Afterwards, when the blood is permitted to remain, it becomes disorganized but not septic. The pain accompanying the rupture of a muscle is fairly characteristic. It is sudden and severe and limited to the site of the injury.

The circumstances occasioning the injury, with severe and sudden pain, with prominent tumorous masses, and, if no hemorrhage, a space where there should be muscle, or the characteristic pain with a fluctuating swelling, are sufficient to indicate the rupture of a muscle. In instances where the muscles are ruptured and the rupture is sufficiently well defined to be recognized by the prominence of the ruptured ends, an incision should be made over the injury; the muscle sutured and the ends accurately approximated. The muscle should be relaxed as much as possible by the position of the limb and the parts immobilized by splints and bandages, after the usual care is given to the external wound.

Rupture of the tendon does not frequently occur, and when it does, if subcutaneous and with but little separation, the position of the limb and rest may be sufficient to bring about the desired result.

In all instances of open wounds where the tendons are divided I advise their careful approximation, and "The Best Means of Suturing Tendons and Muscles" will be the purpose of this paper.

A case that I have already referred to is pertinent to this subject in that Mr. C., who, while standing on the sidewalk was run into from behind by a large Newfoundland pup. The impact of the dog's head was sufficient to rupture the "ham-string muscles." The patient instantly fell to the ground, became faint with pain and could not walk. After a few weeks he was able to go about, but could not flex his leg. A long, compact, tumorous mass took the place of the separation in the muscle, and this caused him so much continuous pain that he concluded that surgical interference might be required. I saw him first ten weeks after the injury, and discovered an unyielding mass along the flexors of the thigh, which might have been an organized blood clot. After the usual preparations for an operation I made an incision eight to ten inches long over the painful part. Opened the sheath of the muscle longitudinally; sponged out a large quantity of semi-sanguinous fluid and discovered within the sheath, where the belly of the muscle should have been, a tendinous structure from six to eight inches in length. This took the place of the muscular fiber and was of very little assistance to muscular contraction.

In continuing the operation I removed almost all of this tendinous structure and with the mattress suture effected relaxation and coaptation. Several sutures were used for this purpose. Then the edges were united by a continued catgut. The sheath was sutured and the muscular structure was stitched to the sheath for from two to four inches on each side of the coaptation. The sheath stitches were used to give the muscular fibers a greater rest and for a time to destroy their activity. The leg was then fixed in an angular position and the patient made a good recovery with a normal use of the leg.

A carpenter had the triceps severed by a buzz-saw. He could flex the arm, but could not extend it. The wound of the muscle was stitched with chromicized catgut.—(Quilt sature).

The muscle was well retracted under the skin but during the suturing the skin was retracted from the wound, exposing the ends of the muscle, and the skin was so retained while the deeper suture loops were being introduced, including the muscle and skin; at least two inches on each side of the wound interrupted sutures were used for coaptation purposes, but the deep quilt loops were mostly depended upon for relaxation and coaptation.

The arm was retained in an extended position for four to six weeks, with, from time to time, passive motion. The patient was subsequently enabled to continue his work as carpenter, and was able to extend his arm with the necessary strength.

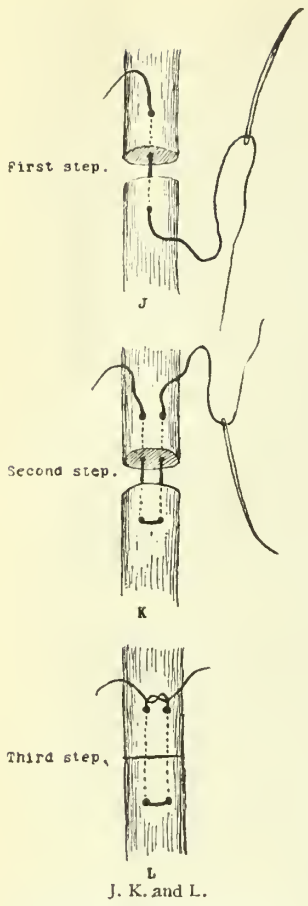
The secret of muscle suturing is to include in the suture the muscular structure a sufficient distance from the wounded end. The loops of the quilt suture are more effective than the interrupted stitch as it incloses and gives a greater purchase and support to the muscular fiber.

EXPERIMENT NO. I.

March 11th, 1902.

The dog was anæsthetized with chloroform, no ether being at hand. Severed the heel tendon. The proximal end of the tendon retracted three-quarters of an inch. The distal scarcely at all. By firm pressure with the hand over the muscle the space between the divided ends was lessened, though I considered it expedient to slit the sheath of the tendon in order to reach it; used a mattress suture of chromicized catgut for approximation purposes.

The suture was entered first into the proximal tendon about one-half an inch from end, and was brought out at the center of its end, (J). Again it was entered into the center of the distal end and brought out one-half inch beyond. Again we return a couple of lines from the last point of exit (K) and carry it back through the tendon and tendon ends to the side of the initial point of entrance of the suture and there



J. K. and L.

Introducing mattress suture and tying. The suture pierces both *ends* of divided tendon *twice*.

tied. This completed a loop; all of the suture was buried at the ends, (L).

The tendon being small I concluded it would not bear two loops as the repeated puncture of the tendon by a comparatively large and cutting needle would too greatly wound it so I united sheath with other peritendinous tissues. I did not and could not suture the sheath of the tendons which, when split, had become lost in the other tissues, except where it might be caught up with other tissues.

The wound was dressed and the limb was immobilized with plaster of paris. The animal broke the plaster splint soon after applying, and died twelve hours after from the effects of the chloroform.

BOSTON MEDICAL JUN 22 1904 LIBRARY.

EXPERIMENT NO. 2.

March 15th, 1902.

Anæsthetized the dog. Commencing with chloroform, and after a few minutes, continuing with ether.

Shaved over the tendons and used three per cent carbolic solution for preparing the skin. Severed two tendons (tendo achilles) above the hoc joint and thereby permitted the leg to become flail-like.

The ends of the tendon did not separate more than one inch, most of which took place in the proximal end, or the end attached to the muscle. Used a mattress catgut suture (No. 2.) as in the first experiment, except that two were used instead of one. The second tendon was united like the first. The sheath was fairly isolated and sutured; after suturing the skin, applied a dressing, and immobilized with plaster of paris. In this experiment smaller needles were used, but they were cutting and were inclined to unnecessarily wound the tendon.

A sharp cutting needle should not be used in tendon suturing.

Post Mortem.

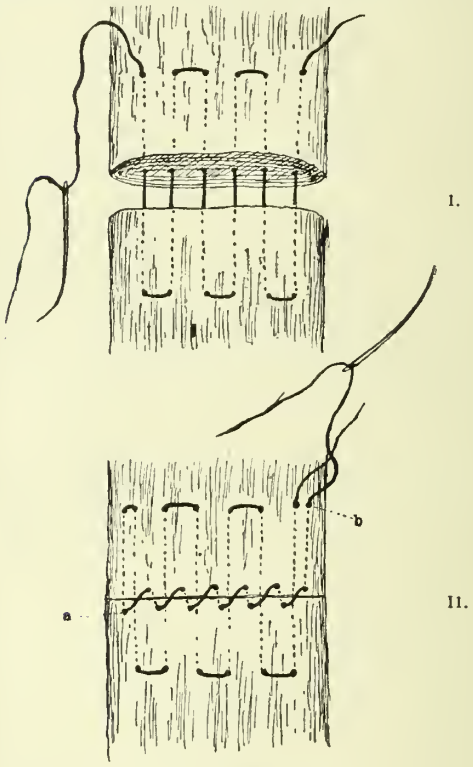
The post mortem of Experiment No. 2, was held on April 10th, twenty-six days being allowed for the healing.

So far as to the operation of March 15th, there was slight attenuation of the tendon of one-half of an inch; a thickening of same tendon towards muscle.

EXPERIMENT NO. 3.

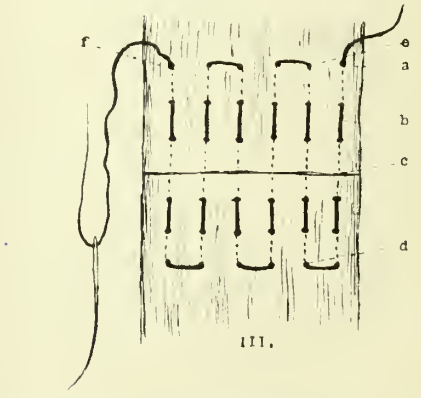
March 15th, 1902.

Severed the Gluteal muscle. There was but little retraction of its fibers. Separated the skin



MUSCLES.

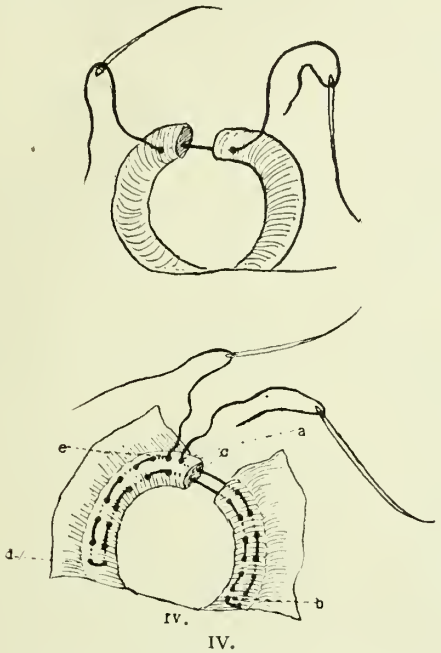
I. MATTRESS SUTURE. II. MATTRESS SUTURE.
a—Continued for apposition of edges ending at b, and tied.



MUSCLES.

a—Beginning of suture. b—Suture exposed on surface of muscle c—Suture pierces end of muscle. d—Return of suture to e. f—Conclusion of suture.

from the surface of the muscle to permit the suturing of the muscle without including the skin. Three loops of No. 3 catgut, (I) mattress sature, were used which included one and one-half inches of each end of the muscle. After forming the last loop I made a closed approximation of the edges of wounded muscle by a continued suture. (II-a.)



IV.

SUTURING A LACERATED SPHINCTER ANI IN COMPLETE LACERATION OF THE PERINEUM.

a—The needle enters carrying suture to b and returned. c—Divided ends of muscle. d—Return of suture. e—end of suture. The end to be tied.

Post Mortem.

The post mortem of April 5th, 1902, proved perfect union.

EXPERIMENT NO. 4.

March 16th, 1902.

"The peritendinous suture after an effort to do the double flap."

Following the usual necessary preparations I removed one inch of the longest tendon entering into the tendo achilles. Pierced the center of the proximal tendon about one-half inch from the end and splitting to within one-eighth of an inch of the end (E. a) with a knife, cut from the beginning of the incision (c) outward, thereby dividing one-half of the tendon and making a flap which would partly take the place of the part of the tendon cut away. In this instance the flap did not reach the distal extremity, and a flap from that end was necessary. A flap was begun from the side opposite to that which was made in the proximal tendon.

In splitting the distal extremity I permitted the knife to cut too far and pass through (E. b) and thereby, in this small tendon, destroy all possibility of forming a flap that would easily reach the other (E. a). An effort was then made to approximate the flap from the proximal tendon (E. a) to the split distal tendon (E. b). It was accomplished with fine silk, but the traction was sufficient to completely separate the flap from its tendinous attachment (E. c).

There being now not sufficient desirable tendinous tissue to effect a union, the ends were stitched to a neighboring tendon, or rather to its peritendinous structure.

Observations:—A narrow knife blade should be used for splitting purposes.

There should be little or no traction on flaps and if the flaps do not easily approximate, relaxation should be brought about from the more remote part of the tendon.

The knife should not be withdrawn until the flap is completed, otherwise the incision might be lost.

The secondary observation, or the peritendinous suturing, may be an object lesson in this method of suturing, though the activity of the dog is prone to interfere with repair.

E.

a—Flap made properly. b—Flap cut through by mistake and made useless. c—End of split and where flap is reflected from tendon.

F.

Peritendinous suture to in part rectify the error in E.

Post Mortem.

The post mortem was held on this dog on April 9th, 1902.

Found sloughing tissue over the hoc joint and at the lower end of the part operated upon. There was pus in the region of the joint. No separation in the tendinous structure to the feel.

Made a careful dissection of the tendon for the purpose of discerning the repaired ends. Found four or five silk sutures in tendon, but the repair had obliterated the points of suturing, and I could not discern the exact tendinous points that had undergone repair.

In the experiment, even though separation of tendon end had taken place, it did not materially interfere with peritendinous union.

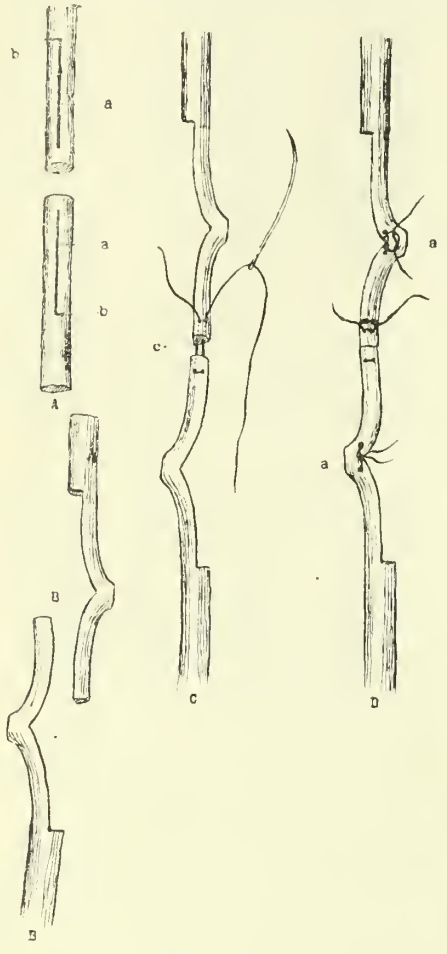
I believe the tendons are prone to union, even under adverse circumstances, and the sheath, though poorly sutured, will readily conform itself to the tendon.

As to the adhesions interfering with the utility of the tendon, no definite conclusion could be reached by this experiment.

EXPERIMENT NO. 5.

March 19th, 1902.

Removed three-quarters of an inch of tendon and split each tendon about one-half of an inch to within one-eighth of an inch of the ends (A.



TENDONS.

a-a). Cut outward from the beginning of the slit in the proximal tendon (b) and inward in the distal (b1), thereby making two flaps; these were united with catgut (C. c). I placed a stitch transversely in each of the ends to prevent the flaps from tearing through (D. a. a.) if they experienced any traction. I believe this suture placed transversely and at the terminus of the incision made for flap purposes will greatly fortify against complete splitting.

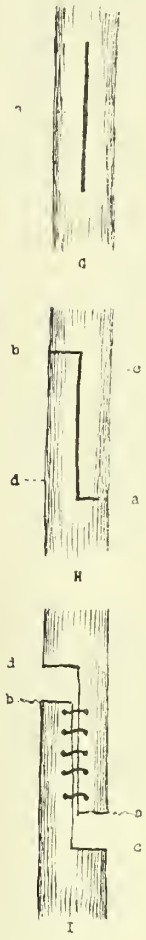
This operation is only called for following trauma where a portion of a tendon is destroyed. When a tendon is contracted a sufficiently long incision should be made longitudinally in the tendon. This will permit a tendinous substance for repair as long as the split in the tendon (G. a).

Post Mortem.

The post mortem was held on the dog on April 9th, 1902.

To all outward appearances the tendon was thicker to the feel than the normal. The dog had been able to walk.

On removal of the skin there appeared to be a union of the tendon. At the end of twenty-



ELONGATION OF TENDON.

G. Incision in the tendon, or the splitting.

H. a—Cutting transversely to right from longitudinal incision. b—Cutting to left.

I. Tendon elongated and sutured; a and b separated from original positions c and d.

two days there seemed to be a strong and useful union between the divided ends.

There were no signs of chromicized catgut present. I was obliged to split the tendon longitudinally to find the points of repair, that manifested themselves by new tissue which did not possess the glistening white appearance of old tendon tissue. It had a darker and more watery appearance.

EXPERIMENT NO. 6.

March 20th, 1902.

"Operation on a flexor tendon with the object of shortening or elongating the tendon as condition might indicate."

I first split the tendon along the center one to two inches (G. a) and cut transversely through one-half of the tendon at opposite sides of each end (H. a. b.); one transverse incision being on the opposite side of the tendon to the other.

This procedure gives two flaps (H. e. f.) one on the proximal tendon and one on the distal of equal lengths and with cut surfaces apposed. These tendons were pulled apart, causing the tendons to slip one over the other and sutured, thereby elongating the tendon.

By cutting away the ends of the flaps (a. b.) they could be drawn towards (c. d.) thereby shortening the tendon.

I am inclined to think that if the plastic work was done under aseptic conditions and surroundings and with great care in the suturing of the sheath, that a good result might follow. It would be scarcely reasonable to conclude that after an operation on an active animal with the muscles in play, and without the necessary after-treatment, we should expect a satisfactory result. It is next to impossible to have an aseptic atmosphere, aseptic ligatures and aseptic assistants in handling operations on dogs.

EXPERIMENT NO. 7.

March 22nd, 1902.

In this experiment I severed one of the heel tendons; there was slight retraction of the proximal end. It was sutured with a small Hagadorn needle armed with catgut, and with a single loop of mattress suture, the ends were fairly well approximated. (J. K. L.).

This suture included about one-quarter of an inch of each end of the tendon, and was carried through the ends. The suture was only exposed at the beginning and at the point of return. There was another and a larger loop made in a similar manner to the first, and though it included more of the tendon was not carefully buried in the tendon structure. Its purpose was a relaxation that prevented traction on the sutured ends. A few hours later the animal tore off the plaster of paris and dressings.

Remarks:—A cutting needle should not be used in suturing tendons. Very small needles should be used. They should be round with no cutting edges. Large needles in small tendons will destroy most of their continuity. Care should be taken in carrying a curved needle through a tendon not to deviate from its original arc. The same care should be used in drawing through the suture; any considerable deviation from the course of puncture will tear the tendon.

Post Mortem.

The post mortem on this dog was held on April 10th, 1902.

It showed the distal fragment of cut tendon fairly well adhered to adjacent structures. The proximal end was quite firmly attached to the underlying tendinous structures. The sheath of cut tendon was continuous with sheath adhered to. An interval of about five-eighths of an inch was between the cut ends with apparently no fibrous or tendinous structure between. Traction on this tendon had direct effect on its muscle.

EXPERIMENT NO. 8.

March 25th, 1902.

The experimental work of to-day upon two tendons that entered into the heel was more satisfactory than the preceding experiment.

The usual proceedings of anæsthetizing, shaving the parts and antisepticizing the skin were carried out.

Then a logitudinal incision was made over the tendons; the sheath split and the tendons exposed.

The tendons were severed transversely and reunited with a mattress suture (J. K. L.); one with silk, No. 2; the other with catgut No. 2; using a small round needle with no cutting edges.

The suture was entered about one-quarter of an inch from the end of the proximal tendon, carried through its end, entering again at the end of the distal tendon and brought out one-quarter of an inch from the end. The needle was again entered at the side of the point of exit and carried back in a like manner to near the point of entrance, and there tied, completing the mattress suture.

While the mattress suture maintains relaxation of the segments it does not effect a perfect coaptation of the edges of the segments; one or two interrupted superficial sutures were used for this purpose, and a perfect coaptation was brought about.

The No. 2 catgut was rather unyieldy for the small round needle, and required considerable force to carry it through the tendon. It had more tendency to split the tendon than the silk. The round needle without the cutting edges merely punctured the tendon and in trying to make taut the suture, a greater force could be used without splitting the tendon than when a cutting needle had been used. The sheath was suturated en masse with other peritendinous structures.

Post Mortem.

The post mortem of this last experiment was held on April 3rd, allowing eight days for healing.

There was sloughing over site of operation. Sloughing also found two inches below the site of operation.

The tendons were exposed and a necrosed condition present.

In the eight days that intervened between the operation and the post mortem there was sloughing of both tendon and muscle, and though only a week had lapsed, there was found sloughing between the tendon and the muscle with no disposition to repair.

EXPERIMENT NO. 9.

April 3rd, 1902.

Incised tendons or several tendons comprising the tendo achilles. The structure cut through was at the junction of the tendon with the muscle and the surfaces were not altogether muscle or tendon. The tendinous portion was well surrounded with a fibrous sheath and retracted more than the muscle. After catching up a certain portion of the proximal end, mostly muscular fiber, I made an attempt to stitch it to the distal end. This had retracted within its sheath and was coaxed well out towards its companion end before the stitches were introduced.

The suturing was as follows:—The needle was introduced transversely in the proximal tendon one inch from the end, and again one and one-half inches from the end, so that a greater purchase might be had. The usual mattress suture was then used, except additional small loops were transversely used in the substance of the tendon before the ends were pierced. The sheath was sutured, the outer wound closed and the leg placed in splints.

Post Mortem.

The post mortem held on this dog on April 10th, showed muscular and tendinous structures in wound and almost the entire leg undergoing a rapid sloughing, with no tendency towards repair.

CONCLUSIONS.

In the suturing of divided tendons I have come to the conclusion that it is not proper to use a large needle in a small tendon. Neither do I think it expedient to pierce the ends of such tendons with needles, though the tendon is more accurately approximated at its wounded ends. I have not concluded, however, that these ends will not repair under such a circumstance, but I do know that the needles piercing the ends separate the tendonous fibers and destroy the continuity of the parts.

It is easier to suture with silk than with catgut. Catgut, sufficiently large to be of much utility, occupies a large portion of the tendon and is apt to injure a small tendon; it also requires a larger needle than the silk, yet silk will remain in the tendon for twenty to thirty days without dissolution, and unless in an aseptic case, is apt to be harmful as an irritant. Chromicized catgut, I think in the majority of cases, could take the place of silk; and yet I do not wish to put silk aside.

In the repair of tendons the ends should be permitted to fall together; in other words, the sutures for coaptation purposes should not be strained.

If the ends of a tendon are not easily approximated, relaxation sutures should be used, catching the tendon a half an inch or more from its ends, one suture being tied to the other.

I have suggested the suturing of the terminus of a split for flap purposes. This suture practically includes the end of the tendon and is to prevent the flaps splitting through. I think the suture may be of utility in plastic work.

In suturing of tendons no cutting needle should be used; only round needles, and they should be used with care. A needle should be carried through the puncture of tendon in the line of puncture as also should be the suture.

The mattress suture is the most useful in tendon work. In small tendons the suture should be carried transversely one-half inch from end; the suture only showing on the sides. In small tendon suturing the peritendinous structures may be united by a small suture and this will be sufficient to make a proper apposition to the tendon ends.

In experimental work on the animal it is almost impossible to prevent infection. In applying dressings and splints on a part to prevent motion too great a pressure is required, sloughing ensues, and a poor result follows.

A suture should always be smaller than the needle, otherwise the suture will lacerate an important part.

The needle should not be too much curved, as it is difficult to use such a needle in piercing the tendinous structure a sufficient distance to be of value.

In large tendons, I believe the chromicized catgut to be the proper suture, if the suture is sterile. However, it is easier to suture tendons with silk, and under aseptic conditions I believe the silk to be very efficient; but as to their comparative value I ask for further time to arrive at an intelligent conclusion.

I wish to state here that the destruction of a sheath of a tendon is followed by rapid repair.

Also that the repair of the tendinous substance is much more rapid than I had anticipated.

I believe that a tendon when properly sutured will have an excellent union in two weeks, and at the most in three weeks.

Gentlemen, in this paper I have given you the facts as I have found them; if the results of the various experiments are not satisfactory I do not know that it is quite my fault. It is better for us all to analyze and act upon facts as they are presented. I desire, however, to confess that this work has not been altogether satisfactory to myself, but it may be at least the starting point in good work hereafter upon this subject, and such work is sorely needed.

DISCUSSION ON DR. CROWLEY'S PAPER.

Dr. H. M. Sherman, of San Francisco:—The subject has been thoroughly illucidated, and I have only a few words to say in regard to the healing of tendinous tissue. The tendo Achillis is severed for club foot, and it will heal so that one can not tell where the original incision was. The tendo Achillis has a large amount of fibrous tissue and blood vessels for the healing process, and that is one reason why there is such perfect healing. In the more elaborate manipulations, Dr. Crowley has told us, there must be a good deal of handling of the tissues; and when you take it out of the sheath, you do not restore the circulation that was there, and you are entitled to anticipate a certain failure. The healing of certain tendons, where the blood supply is good, is easy, and where the blood supply is not good, it is harder to heal. It seems as if there were in some of these cases a meso tendon, and that it carries to the tendon the blood for healing purposes; but I can not state anything more than that supposition. Nervous diseases cause contraction and paralysis, and we have to shorten or lengthen the tendons. The shortening is a simple matter—to bring together the cut surfaces. We may remove a certain portion and leave an oblique surface. The greatest difficulty is in the lengthening of the tendon. In operating for transplanting the tendon, which has been done in late years in poliomyelitic paralysis, we wish to transfer a functionating section to one that is not functionating, and we have the proposition of suturing a living tendon to a tendon which is dead. The muscle that has lost its tone and is not functionating will not bear strain, and an operation which at first appears satisfactory will prove a failure, on account of stretching the muscle. Another point is the rest we have to give after the operation. The time limit which Dr. Crowley sets is too short. Three weeks is enough for plastic material, but not enough for tendinous material. We must give the patient rest for a long time—many months—during the time the tendinous material is being made. In suturing the muscles, the surture which has been recommended is not objectionable, but we do not surture muscles enough. In a compound fraction there may be laceration of the muscle and tendons, and after the patient recovers, and has a leg which will bear him well, we find some muscle which has no use. We should go further than put the two bones together, we should suture the lacerated muscles and tendons and integument.

Dr. T. W. Huntington, of San Francisco:—I have found the grafting of tendons of great utility in cases of ten to fifteen years standing. I have always found the procedure to be of great utility and advisable, more so in these cases than in any other. It is the distal extremity that we must look after when important tendons are severed. We can illustrate this in Dupuytren's contraction, a condition which up to recent date has been regarded as irremediable. I have dealt with a half dozen of these cases very satisfactorily by opening the palm of the hand, dissecting away the fascia, and lengthening the tendons by the tendon-lenghtening process. I do not expect in these cases to give absolutely perfect function, but to give a chance for renewal of function. Dealing with the tendons with with the tendon graft is not so difficult as it might seem.

Dr. K. Pischel, of San Francisco:—I would like to suggest a suture I have used in my eye work with satisfaction. This suture is very thin and very strong and absorbable. The only drawback is that it is too short—length five to six inches—and I have had no difficulty in getting them. It is the tendon of the rat's tail. The preparation is simple. The tail is cut off at the root, the skin cut off, and many fine silky tendons are found. I put them in formalin one week, and afterwards carbolic acid three to five per cent. They will absorb in about a week, and if we put them in a weak solution of chromic acid they will last longer. I could not use the tendon direct from the formalin, and I was surprised to find the formation of small hard nodules, which kept the eye inflamed for two weeks. I spoke to Flexner about it, and he thought the difficulty came from the formalin. Since I put them in carbolic acid I have had no more trouble.

Dr. S. J. Hunkin of San Francisco:—In our work, if we put it in this way it would work out. There is quite a good deal of strain in the muscle, and if the suture is passed through the tendon, by the time you get to the second stage the nearest would be torn off. We should pass the suture through taking in one-sixth of the tendon, and pass the suture to the other side. After the first suture is put in the tendon is held together, and then the others may be put in.

Dr. Geo. F. Shiels of San Francisco:—So long as you have tension on the suture there will be atrophy; so it must have rest. There seems to be an idea that you must pull it together with sutures. If you do that you use the suture for a purpose for which it is not intended. It is for coaptation. I understood Dr. Crowley to say that the tissue must be at rest. Wherever you put tension you get atrophy—and then a bad result.

Dr. E. G. Frisbie, of San Francisco: As the Dupuytren's contraction has been mentioned, I wish to remark I see no reason why we should lengthen the tendons, as the tendons are not involved. The contraction is extraneous to the tendons and the fibrous tissue. I think the operation of lengthening the tendons is unnecessary.

Dr. D. D. Crowley, of Oakland: I have the specimens from the dogs, where I had the tendons together, and placed them in formalin, to be brought here to-night, but they are not here. I can say, however, that the repair that had taken place in three weeks is remarkable. I will not speak as severely of Dr. Huntington's Dupuytren's contraction as Dr. Frisbie, for I believe sometimes

there is contraction of the tendons; but most of it is in the fascia, and the tissue surrounding the tendons and palmar fascia. I would also refer to the loops, of which I have been speaking, of the matress suture. Some physicians mentioned the fact that it required no pressure on the suture. The more intimate sutures are for the close approximation, but the matress suture is for relaxation and apposition purposes. The rat-tail suture has been tried for a long time. It was tried in San Francisco ten years ago, and it was found that the usual length of the tail was not sufficient. It was tried years ago in the East, but was not satisfactory. I would like to have more time in coming to conclusions as regards the silk and cat-gut.

PROCEEDINGS OF THE REGULAR MEETING OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY, HELD TUESDAY EVENING, DECEMBER 9, 1902.

The regular monthly meeting of the San Francisco County Medical Society was held in the parlor of the Y. M. C. A. on Tuesday evening, December 9th, the President, Dr. Louis Kengla, presiding.

After the regular order of business was disposed of, a paper on "The Diagnosis of Diseases of the Gall Bladder," was read by the author, Dr. W. W. Kerr, and a paper, "Report of a Case of Acute Phlegmonous Cholecystitis," was read by the author, Dr. L. W. Allen.

Dr. Kerr's paper was discussed by Dr. Ebright, who said that the etiology of a case of gall stones led him to look for an antecedent case of typhoid fever.

Dr. J. Henry Barbat said there was difficulty in determining whether, in these cases, there was a movable kidney or gall stones. He had in some instances cut down for a case of floating kidney and had discovered gall stones, and *vice versa.*

Dr. Horton said he knew of no trouble in deep abdominal disorders so difficult of diagnosis as gall stones. X-ray examinations he had found to be not altogether satisfactory.

Dr. Rixford said gall stones may occur in all ages. He referred to one case where, after six weeks of excessive vomiting, an abscess was operated upon disclosing gall stones, each one as large as a small walnut.

Dr. Kerr explained that he had not undertaken to discuss the diseases of the gall ducts in his paper, as those of the bladder made enough material for one evening's consideration.

In discussing Dr. Allen's paper Dr. Rixford said that acute inflammation in the upper abdomen was a cue for phlegmon of the gall bladder.

Dr. MacMonagle said that Dr. Allen should be congratulated for raising the question as to the proper course to pursue when gangrenous attack is diagnosed—whether the bladder should be drained or removed. Dr. MacMonagle said that, as a surgical proposition, if the bladder threatened infection of other parts it should come out. He said diagnosis and operation should be done earlier—get the gall bladder out before it be too late.

Dr. Allen said he had found gangrene, with the pulse at 96, when he had thought only to find appeudicitis. He favored early operation.

Dr. Spencer addressed the Society as the retiring President. He said he desired to make a few comments, express a few hopes and offer a few suggestions in the way of action for the future. He said, among other things:

"One of the principal happenings during my incumbency was the amalgamation of the County with the State Society. This certainly is along lines that cannot be assailed. It will enable us to present a solid front in case we should desire to ask recognition at the hands of the Government. It may happen that one day we shall ask to have representation in the President's Cabinet.

"By certain of the Eastern societies men of other schools are being invited to lay aside their sectarianism and join in with the regular profession in discussion of scientific medical questions. There are men not of our school who should be asked to break down the sectarian barrier which alone keeps them from affiliation with us.

"My predecessor, Dr. Evans, favored very strongly a more rigorous system of milk inspection; but unfortunately our members did not take up the matter in a manner calculated to accomplish very much. The daily papers, however, have devoted considerable space in exploiting the question.

"Another matter particularly pleasing to me was the action of this Society in upholding the local Board of Health in its contention regarding the bubonic plague.

"The Society has acted carefully in the matter of watching applications for admission to practice. It has not hesitated to expose unworthy applicants.

"It is my opinion that this Society should have a fund set aside to provide suitable entertainment for eminent men of our profession, and other scientists, who may be visitors from other parts of the country. Recently the Climatological Society met in this city, and as the aims of that society are somewhat closely related to ours, it would have been entirely proper for this Society to have extended some sort of public recognition to them.

"In conclusion, I would say that an effort should be made to have men of distinction in our profession from other sections come before us, read papers and join in our discussions. I do not mean to underestimate the abilities of our own members, but I think much good might be

accomplished if we had members of other societies visit us from time to time, and that representatives from this Society should go to them, thus bringing the members of our profession into closer touch with each other."

President Kengla announced the death of Dr. James F. McCone in a few appropriate remarks, and upon motion of Dr. J. Henry Barbat, a committee of three was appointed to draw up a suitable minute, to be presented at the next regular meeting.

MEDICAL SOCIETY MEETINGS.

The thirteenth semi-annual meeting of the Southern California Medical Society was held on the 3d and 4th of this month at Pasadena. Sixty-six members were in attendance and quite a number of visitors. The meeting was devoted to the reading of scientific papers and discussions.

The meeting was called to order by President Dr. F. C. E. Mattison, who made an appropriate speech, after which an address of welcome was given by Dr. Norman Bridge, Pasadena. The programme carried out was:

"Pediatrics"—Dr. J. H. Seymour, chairman, Los Angeles, "Rachitis"; Dr. F. O. Yost, Los Angeles. "Hemorrhage in Children."

"Nervous and Mental Diseases"—Dr. H. G. Brainerd, chairman, Los Angeles, "Chorea."

"Surgery"—Dr. Claire W. Murphy, chairman, Los Angeles, "Asepsis in Surgery of the Neck and Goitre"; Dr. James H. McBride, Pasadena, "Localization of Cerebral Lesions for Surgical Purposes"; Dr. M. R. Toland, Pomona, "X-Rays in Surgery"; Dr. A. W. Morton, San Francisco, "Surgical Treatment of Gastric Hemorrrhage."

"Gynecology"—Dr. Rose T. Bullard, chairman, Los Angeles, "Is Hysterectomy Justifiable in Cervical Cancer?" Dr. Carl Kurtz, Los Angeles, "Surgery of the Gall Bladder"; Dr. Louise Harvey Clarke, Riverside, "The Public School and the Growing Girl"; Dr. Hoell Tyler, Redlands, "Hydatidiform Mole."

"Opthamology" — Dr. Lewis S. Thorpe, chairman, Los Angeles; "Report of a Case of Diphtheric Conjunctivitis;" second, "Report of a Severe Burn of Corneæ from an Explosion of Acetylene Gas."

"Otology, Rhinology and Laryngology"—Dr. E. W. Fleming, chairman, Los Angeles, "Ethmoidal Disease"; Dr. Benjamin F. Church, Los Angeles, "Radical Operative Treatment of Chronic Suppurative Otitis Media."

"Skin and Genito-Urinary Diseases"—Dr. Charles Lockwood, chairman, Pasadena, "Cystitis in Women."

"Obstetrics"—Dr. J. C. Ferbert, chairman, Los Angeles; Dr. F. C. Shurtleff, Los Angeles, "Report of Death During Labor Due to Ventral Fixation."

Lunch was tendered the Society and to the Pasadena Society by the President, Dr. F. C. E. Mattison, at Alpine Tavern, on the second day. At 2 p. m. the session continued.

"Medicine and Therapeutics"—Dr. F. M. Pottenger, chairman, Los Angeles, "Statistical Investigation of Culture Products in Tuberculosis."

"Pathology"—Dr. Stanley P. Black, chairman, Pasadena, "Report of an Unusual Case of Syphilis."

"Practice of Medicine"—Dr. Chester L. Magee, chairman, Los Angeles, "Symposium on Bright's Disease"; Dr. Chester L. Magee, "Etiology and Pathology"; Dr. Joseph King, Los Angeles, "Symptomatology and Diagnosis"; Dr. J. C. King, Banning, "Treatment."

The officers of the Society are: Dr. F. C. E. Mattison, Pasadena, President; Dr. J. C. King, Banning, First Vice-President; Dr. F. W. Thomas, Claremont, Second Vice-President, and Dr. F. D. Bullard, Los Angeles, Secretary and Treasurer. The Committee on Arrangements for this meeting was Dr. Stanley P. Black, Dr. James H. McBride and Dr. Norman Bridge.

At the twelfth annual meeting of the California Northern District Medical Society held at Marysville on the 11th of November, the following officers were elected:

President, E. W. Hanlon, Marysville; First Vice-President, H. W. Taggart, Stockton; Second Vice-President, F. B. Sutliff, Sacramento; Third Vice-President, J. T. Harris, Gridley; Secretary, E. E. Stone, Napa; Treasurer, O. Stansbury, Chico.

Board of Censors—W. E. Briggs, Sacramento; W. E. Bates, Davisville; A. M. Henderson, Sacramento; B. J. Powell, Stockton, and John Fife, Red Bluff.

Committee of Arrangements—G. W. Stratton (Chairman), David Powell, E. W. Hanlon, J. H. Barr and T. P. Peery.

At the last regular meeting of the Fresno County Medical Society, the paper for the evening was written by Dr. Rosenberger of Sanger on the subject of "Physiognomy as an Index to Character and Disease."

The question of the local society joining the State Society in a body was made a special order of business for the next regular meeting, which will be held in January.

At the November meeting of the Salt Lake Medical Society, the subject up for discussion was typhoid fever. In his paper on the fever, Dr. A. C. Ewing, held that typhoid can be warded off by inoculation, the same as yellow fever and smallpox. He cited authorities to show that inoculation, while it may have a tendency to lessen the possibility of catching the disease, does not assuredly make one an immune.

He advocated, in effecting a cure, intestinal anticepsis—a germicide or anticeptic which would have the desired effect. Constant cleansing of the intestines would assist in the destruction of the bacilli.—*Salt Lake News.*

The Hawaiian Territorial Medical Society held its annual meeting Saturday evening and elected officers for the year as follows: Dr. H. C. Sloggett, president: Dr. W. L. Moore, vice president; Dr. J. T. McDonald, secretary; Dr. Taylor and Dr. C. B. Wood, executive committee, with other officers ex-officio members. A committee was appointed to make arrangements for an annual banquet of the association to be held soon. The active and honorary members of the association are as follows:

L. F. Alvarez, G. P. Andrews*, B. D. Bond, C. E. Camp, C. L. Cofer* (U. S. M. H. S.), C. B. Cooper, D. A. Carmichael*, C. A. Davis, F. R. Day, N. B. Emerson, C. L. Garvin, Colonel J. B. Girard* (U. S. A.), E. C. Goodhue, I. Haida, Geo. Herbert, A. G. Hodgins, F. W. Hodgins, Walter Hoffman, Carl Hofman, John Holland, H. W. Howard, F. H. Humphries, I. Katsuki, Dr. Li* (Chinese Consulate), W. H. Mays, W. L. Moore, Dunlop Moore*, (U. S. M. H. S.), I. Mori, H. V. Murray, R. P. Myers, J. G. McDonald, W. F. McConkey, R. J. McGettigan, J. S. McGrew*, R. Oliver (deceased), C. A. Peterson, J. S. B. Pratt, J. H. Raymond, E. C. Rhodes, C. G. Rodgers, B. F. Sandow, A. N. Sinclair, G. G. Smith* (U. S. A.), H. C. Sloggett, C. L. Stowe, W. E. Taylor, B. D. Taylor* (Major U. S. A.), L. S. Thompson, J. T. Wayson, E. C. Waterhouse, John Weddick, R. L. Wilson* (U. S. M. H. S.), C. B. Wood, Hubert Wood, W. W. Wood* (Major U. S. A.), L. A. Yule* (U. S. A.).

*Honorary members.

The society holds its meetings at 8 p. m. on the first Saturday of each month in the president's office.—*Honolulu Bulletin, Nov.* 3.

ANTI-TUBERCULOSIS LEAGUE.

With the organization of the Southern California Anti-tuberculosis League during the recent meeting of the Southern California Medical Association, a movement was formally inauguarated, the importance of which and the possibilities for good in Southern California can hardly be overestimated. At the meeting of the association at Idyllwild six months ago the matter was discussed and a committee on organization appointed. This committee reported at the recent meeting in Pasadena, the result of which was the formal organization of the league, with Dr. F. M. Pottenger of Los Angeles as president.

The purposes of the organization are stated to be, first, research, which will include the scientific investigation of all problems connected with the subject of tuberculosis; second, education. This branch of the work will be of the greatest importance, including, as it will, a systematic campaign for the education of the laity with regard to this much dreaded and much misunderstood disease. The aim will be to disseminate knowledge of the disease, its prevention and the care of those afflicted with it, as well as to teach those thus afflicted to properly care for themselves. Third, practical work in the relief and care of indigent patients affiicted with tuberculosis; fourth, co-operation with other organizations of similar aim. The comprehensive aim of the league is shown by the provision for its membership, which will consist of active, honorary and life members. Any person may become an active member by the payment of a yearly fee of $1, while any one may become a life member by the payment of $25. Persons may be made honorary members by vote of the league, this being meant for those eminent as scientists or educators, whom it may be desireable to have connected with it from time to time. It will thus be seen that the proposed work of the league is of the widest possible scope, making it possible for any one interested in this great work to take an active part in furthering its aims. There will be a board of directors to meet quarterly, the regular annual meeting of the league to be on the Tuesday before the first Wednesday in June. The present board of officers will hold office until next June, when the permanent organization will be perfected.—*Los Angeles Herald.*

HEALTH OF ALLIED FORCES IN CHINA.

Questions Diplomatiques et Coloniales for July has a long article on the sanitary conditions of the allied troops during the Boxer troubles and the subsequent occupation of China by foreign forces. It very rarely occurs in any country that so many insanitary and unsavory conditions are combined together as in China, and this expedition has therefore been a pre-eminently good test of the sanitary regulations and precautions adopted by the armies of the different countries. With a not unnatural pride, the writer, who is a Frenchman, puts the French medical service in the first rank. The French had a force in the field of 17,000 men, whose health was attended to by a force of 76 surgeons and 390 attendants of various kinds (nurses, etc.). Without counting the resources of the French hospitals at Tientsin and Nagasaki, they had a further supply of 2,000 beds for ambulance or field hospital use, more than one-half of which were never used. Abundant medicines and drugs were supplied, at first from France, and later from Shanghai and Tokyo, all appliances for sterilization and disinfection were at hand in abundance and in good condition, and it was remarked that neither the English nor the Germans could show such good sanitary arrangements. As a consequence of this, the article goes on to claim that the health of the French troops was far better than that of any other of the allied forces. Typhoid fever and dysentery were almost *nil* among stationary

troops, though frequent amongst soldiers on the march who were obliged to drink water which had been merely boiled, not sterilized. An outbreak of typhoid, which took place on board the Friant, while anchored off Taku, was attributable to the same cause. The Germans had 23,000 men and 135 surgeons, two of whom were University professors sent out for special laboratory work. They suffered a good deal from dysentery, because they only sterilized the drinking water in the hospitals, and not in the camp, where the men had to be content with boiled water. They had neglected to bring with them some of the most valuable drugs for use against dysentery, and when they got them did not know how to use them. Their average of men in hospital was generally from 4 to 5 per cent of the force, whereas the French never reached to more than 2.7 per cent; nevertheless, they were well satisfied with the sanitary condition of their men. The American force was a very small one, but its medical arrangements were excellent, and in spite of the fact that the men drank only boiled water, they enjoyed an excellent average of good health. The British medical service, on the other hand, was out and away the worst of all. Some of the surgeons came from the Indian Medical Service, others from the Royal Army Medical Corps. There was no cohesion or unity of action between these two branches of the medical service; instruments, apparatus, fittings, all seemed to have been supplied from a lumber room of old stock. Every now and again some up-to-date instrument would make its appearance, but such luxuries were uniformly destined for the British soldiers, and not for their Indian confreres. Having made which disparaging remarks, the writer is eloquently silent as to the way in which the British troops of all shades stood the fatigues of their campaign in spite of their old-fashioned appliances. The Italian arrangements were good, those of the Russians excellent. The Russian medical corps came mostly from the Siberian army, and all its appliances and arrangements were excellently adapted to the needs of the Russian soldiers, who are not quite of the same type as the other European soldiers. The Japanese had some fifty surgeons, and six field hospitals, two at Peking and four at Tientsin. They were very proud of their medical arrangements, and boasted that all their instruments and appliances had been made in Japan. That might have been true, but all their arrangements had been copied from France, and though imitation is the sincerest form of flattery, there was a fly in the ointment in the fact that *les Japonais copierent en toutes choses leurs allies d'un jour*

In addition to the medical equipment of the force, the writer attributes the high sanitary condition of the French troops to one or two subsidiary causes which are well worth mentioning.

1. To a general order issued by General Voyron to the effect that "the Sanitary Service must have precedence of everything else, and all other branches of the service are to do their utmost to facilitate the work of the Sanitary Corps." "General Voyron," says the writer, "knew that the French soldier in health is ready for anything; assure him the integrity of his health, and everything else will come in due course of time."

2. A second contributory cause was the rapidity with which the sick and wounded were removed from the isolated stations and field ambulance hospitals to the more perfectly equipped stationary hospitals.

3. To the great care taken in recruiting to see that only suitable men were selected for the expedition, and to the vigilance of the permanent sanitary commission which was continually eliminating from the force all those who showed the slightest sign of inability to withstand the fatigues and hardships of the campaign.—*Yokohama Herald Mail Summary,* Oct. 17th.

VITAL STATISTICS.

Statistician Coffey of the San Francisco Board of Health made the following report for the month of November:

The total number of deaths during November was 579, equal to a death rate of 19.29 on each 1000 per annum, as against 564 for November, 1901, when the rate was 18.79. Births recorded last month numbered 500, equal to a rate of 16.65, as against 510 in November, 1901.

The deaths registered were distributed as follows: By sex, 352 males, 227 females; by race, 552 Caucasians, 24 Mongolians, 1 Japanese, 2 Africans; by nativities, Pacific Coast 208, other States 108, foreign 254, unascertained 8; 275 were single, 189 married, 90 widowed, 12 divorces, 13 unascertained; 79 were under 1 year of age, 26 were between 1 and 5 years, 46 from 5 to 20 years, 204 from 20 to 50 years, and 224 were 50 and past; 50 died in the City and County Hospital, 14 in the Almshouse, 18 in the emergency hospitals, homes and sanitariums, leaving 358 deaths to be distributed throughout the various sanitary districts in the city. The principal causes of death were: Diphtheria 14, scarlet fever 1, typhoid fever 14, septic diseases 7, cancer (all varieties) 35, pulmonary tuberculosis 69, other forms 8, senility (old age) 10, alcoholism 8, cirrhosis of liver 18, cerebral apoplexy 21, diseases of brain 17, of heart 69, of respiratory system (including pneumonia) 57, digestive system 39, Bright's disease 25. Accidental deaths: Asphyxia by gas 10, by falls, etc., 10, by street cars 6, by vehicles 4, other causes 20, total 50; homicides 3, suicide by firearms 1, hanging 1, gas 1, carbolic acid 9, chloroform 1, prussic acid 1, total 14.

The British Columbian Medical Society has abandoned the intention to appeal to the full court in a suit it instituted some months ago against an optical specialist. The society charged that the provisions of the Medical Act were being infringed by the optician in employing the title "Dr." without having received the Medical Society's license to practice.

Portland is to have its Health Department reorganized under a proposed new charter. The board is to consist of three regularly appointed physicians, who must have resided and practiced in the city for at least five years prior to their appointment. The appointing power rests with the Mayor.

MINUTES OF THE PROCEEDINGS

OF THE

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

AT ITS THIRTY-SECOND ANNUAL SESSION

HELD IN

GOLDEN GATE HALL, 625 SUTTER STREET, SAN FRANCISCO, CALIFORNIA, APRIL, 1902.

(CONTINUED FROM PAGE 27, NOVEMBER JOURNAL.)

Third Afternoon Session, Thursday, April 17, 1902.

The meeting was called to order at 2:05.

Report of the Committee on Dermatology and Genito-Urinary diseases. (Continued.)

R. L. Rigdon read a paper on "The Localization of Disease of the Urinary Tract," which was discussed by John C. Spencer and referred to the Committee on Publication.

L. Bazet of San Francisco read a paper on "Intra-Vesical Depressor for Perineal Prostatectomy," which was referred to the Committee on Publication.

Report of the Committee on Pathology, Histology and Bacteriology:

The following papers, "Pulmonary Gangrene," by William Ophuls, of San Francisco; "Congenital Lymphangioma of Forearm and Hand, with Several Abnormalities; Autopsy Report," by Philip King Brown, of San Francisco; "Primary Epithelioma of the Cornea," by George T. Brady, of San Francisco, and "Fibrous Papilloma of the Anterior Urethra," by George L. Eaton, of San Francisco, were read by title and referred to the Committee on Publication.

George Adam of San Francisco read a paper entitled, "From Ether to the Physiologic Unit," which was referred to the Committee on Publication.

Report of the Committee on Dermatology and Genito-Urinary Diseases (continued):

M. Krotoszyner read a paper on "Spinal Anaesthesia with Tropo-Cocaine in Genito-Urinary Surgery," which was referred to the Committee on Publication.

The Board of Censors reported favorably on the following fourteen applicants: C. C. Baker, P. C. Campbell, Z. Levin, L. J. Belknap, J. T. Stephen, S. I. Shuey, G. M. Barrett, P. S. Nusbaumer, G. L. Eaton, M. Mason, J. Stile, F. C. Keck, J. P. Le Fever, A. P. Lewis.

The Secretary, having cast the ballot for the entire number, they were declared elected by the President.

The Nominating Committee, appointed at a previous session by the President, then made a report, but on motion of W. W. Kerr, duly seconded, the report of this Committee was laid on the table.

The Secretary of the Board of Examiners read his report, which was referred to the Executive Committee, and he was given a vote of thanks for his long service on the Board. The Treasurer read his report, which was referred to the Executive Committee. The Secretary read his report, which was referred to the Executive Committee.

On vote of the Society, Santa Barbara was selected as the place of meeting for 1903.

NOMINATION AND ELECTION OF OFFICERS.

For President, G. W. Davis, of San Francisco, was placed in nomination by W. S. Thorne; F. B. Carpenter, of San Francisco, was placed in nomination by W. W. Kerr.

It was then moved and seconded that the Society go into executive session, which motion carried. On ballot F. B. Carpenter received 81 votes and was declared elected President for the ensuing year. On motion, duly seconded and carried, the election was made unanimous.

For First Vice-President, C. C. Wadsworth, of San Francisco, was placed in nomination by G.. F. Shields; D. A. Hodghead, of San Francisco, was placed in nomination by F. L. Adams.

C. C. Wadsworth received 85 votes and was declared elected and, on motion, duly made and seconded, his election was made unanimous.

For Second Vice-President, H. G. Brainerd, of Los Angeles, was placed in nomination by E. E. Kelly; D. A. Hodghead, of San Francisco, was placed in nomination by H. Bert Ellis.

On vote by ballot by the Society, D. A. Hodghead was duly elected and, on motion, his election was made unanimous.

For Secretary, the incumbent, George H. Evans, of San Francisco, was placed in nomination by J. Henry Barbat. It was then moved, seconded and carried that the nominations close, and the Assistant Secretary cast the ballot, which was done, and the incumbent declared elected for the ensuing year.

For First and Second Assistant Secretaries, Z. T. Malaby and E. M. Bixby, of San Francisco, were respectively nominated, and it was moved, seconded and carried that the Secretary cast the ballot, which was done and they were declared elected.

For Treasurer, E. E. Kelly, of San Francisco, was nominated. The nominations were ordered closed. The Secretary cast the ballot, and he was declared elected.

For Board of Examiners, Dudley Tait, of San Francisco; David Powell, of Marysville; D. E. Osborne, of St. Helena; W. S. Thorne, of San Francisco, and R. L. Wilbur, of Palo Alto, were nominated It was moved, seconded and carried that the nominations close and the Secretary cast the ballot, and the above mentioned members were declared elected.

Alternates to the Board of Examiners, J. M. Kirk and C. J. Burnham, of San Francisco, and S. J. Buteau of Oakland were nominated. The nominations were ordered closed and the Secretary cast the ballot and they were declared elected.

Board of Trustees, C. W. Nutting, of Etna Mills; Thomas Ross, of Sacramento; F. L. Adams, of Oakland; Philip Mills Jones and A. W. Morton, of San Francisco; G. A. Hare, of Fresno; G. L. Cole, of Los Angeles, and W. S. Fowler, of Bakersfield, were placed in nomination from the different Congressional Districts. C. G. Kenyon and J. Rosenstirn, of San Francisco, and William LeMoyne Wills, of Los Angeles, were nominated as Trustees at large. It was then moved, seconded and carried that the nominations close. The Secretary cast the ballot, and the eleven above named members were declared elected.

The Executive Committee made the following report, and it was moved, seconded and carried, that it be taken up section by section.

Section 1. In the matter of the report of C. G. Kenyon, Chairman of the Committee on Revision of Constitution and By-Laws, your Executive Committee recommends the adoption of the report, with the

slight modifications suggested by your committee. (Adopted.)

Sec. 2. In the matter of the resolutions introduced by G. A. Hare, it is the sense of the Executive Committee that this Society should not recommend the teaching of any special therapy. (Adopted.)

Sec. 3. In the matter of the bill of W. B. Kallmyer, for attorney fees, the Executive Committee recommends that it be paid. (Adopted.)

Sec. 4. In the matter of the communications and resolutions from the San Francisco County Medical Society, conveying a vote of confidence in the "Old Board of Health" of San Francisco, the Executive Committee concurs in the vote of confidence, and recommends that this Society take action in the matter by passing a vote of confidence in the board known as the "Old Board of Health."

This section was adopted and the following resolutions were read by G. A. Hare, of Fresno, and were adopted by the Society and ordered spread on the minutes, a copy to be sent to the Mayor of San Francisco, the Department of Public Health, the State Board of Health, the leading weekly medical journals throughout the United States and to the Surgeon-General of the United States Marine Hospital Service:

WHEREAS, The Mayor of the city of San Francisco has seen fit to remove the so-called "old" Board of Health; and

WHEREAS, The Chief Executive of the city has stated that he has determined, after prolonged personal investigation, that bubonic plague has never existed in San Francisco; and

WHEREAS, The position is absolutely unsupported by any competent, unprejudiced physician who has made personal examination of suspects or alleged cases of plague before or after death, or who has examined the bacteriologic evidence presented; and is further in direct conflict with the findings of the Federal Government experts and special commission; therefore be it

Resolved, That the Medical Society of the State of California emphatically condemns this action on the part of the Mayor of San Francisco, and at the same time endorses the position always maintained by the old Board of Health in its sanitary defense of the people of San Francisco and of the country at large.

Sec. 5. The report and accounts of the Secretary of this Society have been examined and found to be correct. The report and accounts of the Treasurer have been examined and found to be correct. (Adopted.)

Sec. 6. The Executive Committee recommends that the sum of $100 be paid to the Chairman of the Publication Committee for services rendered in publishing the transactions for 1901. (Adopted.)

Sec. 7. The Executive Committee recommends that the publication of the annual volume of Transactions be discontinued and that the matter of publications be referred to the new Board of Trustees. (Adopted.)

Sec. 8. In the matter of the bills presented by the Committee on Revision of the Constitution and By-Laws, we recommend they be paid. (Adopted.)

Sec. 9. The report of the Secretary of the Board of Examiners has been examined by your committee, in so far as that was possible, and was found to be correct. Owing to the recent changes in the management of the Board of Medical Examiners, the Secretary of the Board suggests that his books be experted, up to August 1, 1901, but your committee believes this would be a useless expenditure. (Adopted.)

Sec. 10. In the matter of the recommendations of the President, the Publication Committee and the Secretary, we recommend that these matters be referred to the Board of Trustees. (Adopted.)

H. BERT ELLIS.
WM. LeM. WILLS,
PHILIP MILLS JONES.

Report of the Committee on State Medicine, Medical Education and Hygiene:

W. F. McNutt, of San Francisco, Chairman, who read a paper on "Medical Education," which was referred to the Publication Committee, and the discussion was opened by Henry Gibbons Jr., of San Francisco. H. J. Crumpton, of Sausalito, presented a volunteer paper which was read by title and referred to the same committee. W. F. McNutt's paper was further discussed by E. E. Kelly, E. M. Paterson, D'Arcy Power, G. Adam and G. A. Hare.

Attention was then called to the fact that delegates to the American Medical Association meeting had not been elected. The President then referred back to the head of new business. H. Bert Ellis, of Los Angeles, was placed in nomination as delegate, and H. M. Sherman, of San Francisco, as alternate to the American Medical Association meeting. It was then moved, seconded and carried that the nominations close, and the Secretary cast the ballot, and they were declared elected.

It was moved, seconded and carried that the dues of the Assistant Secretaries be paid by the Society.

Report of the Committee on Dermatology and Genito-Urinary Diseases (continued): The paper by Geo. Goodfellow, of San Francisco, "Pernieal Prostatectomy," and one by D. W. Montgomery, of San Francisco, "Pityriasis Rosea," were read by title and referred to the Committee on Publication.

Resolutions by L. L. Dorr, of San Francisco, in regard to vaccine and the estabishment of a vaccine virus farm were read, and on motion referred to the Board of Trustees.

The report of the Committee on Necrology was read by title and referred to the Committee on Publication.

The President-elect, F. B. Carpenter, was then escorted to the rostrum by Past-President C. G. Kenyon and introduced to the assembly by the retiring President. After making a few felicitous remarks, the minutes were ordered read, and were approved as read, and the Society adjourned at 6:30 p. m.

GEORGE H. EVANS, Secretary.

NEWS ITEMS OF INTEREST TO THE PROFESSION.

The Portland, Oregon, health authorities are waging vigorous warfare against the dairymen, it having been discovered that much of the milk supply of the city comes from cows afflicted with tuberculosis. In this connection the fact comes to light that Oregon has no State Board of Health.

The colored man, graduated from Cooper's in the last class, has the distinction of being the first one of his race who has received the degree from a California college.

Smallpox is occasioning considerable work for the health authorities of Sacramento, Hanford, Visalia, Tulare and in Sutter county.

Since last March it is estimated by the Marine Hospital Service that over 75,000 cases of cholera have occurred in the Philippines, with a mortality of 75 per cent. Cholera is also epidemic in Japan, China and Egypt.

An emergency hospital is about to be built at Redlands which, according to the Los Angeles Times, will be the first hospital that town has ever had.

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

F. B. CARPENTER, President, 590 Sutter St., San Francisco. GEORGE H. EVANS, Secretary, 807 Sutter St., San Francisco. ELMER E. KELLY, Treasurer. 771 Sutter st., San Francisco.

Next Annual Meeting will be held at Santa Barbara on the third Tuesday in April.

COMMITTEES FOR 1902-1903.

(First named being chairman.)

ORATION IN MEDICINE ..... WM. WATT KERR, San Francisco
ORATION IN SURGERY ..... GRANVILLE MacGOWAN, Los Angeles

ARRANGEMENTS.

PHILIP KING BROWN, San Francisco; C. M. RICHTER, San Francisco; W. LE MOYNE WILLS, Los Angeles; GEO. COLE, Los Angeles; WALTER LINDLEY, Los Angeles.

AUXILIARY COMMITTEE OF ARRANGEMENTS.

W. H. FLINT, Santa Barbara; C. E. VAUGHAN, Santa Barbara; C. S. STODDARD, Santa Barbara; R. F. WINCHESTER, Santa Barbara; W. B. CUNNANS, Santa Barbara.

PUBLICATION.

PHILIP MILLS JONES, San Francisco; GEORGE H. EVANS, San Francisco; HENRY GIBBONS, JR., San Francisco; DUDLEY TAIT, San Francisco; CHAS. D. MCGETTIGAN, San Francisco.

AUDITING.

C. G. KENYON, San Francisco; E. L. WEMPLE, San Francisco; E. G. FRISBIE, San Francisco.

MEMORIAL.

G. W. DAVIS, San Francisco; ROBERT F. ROONEY, Auburn; CHAS. G. LEVISON, San Francisco.

MEDICINE AND THERAPEUTICS.

NORMAN BRIDGE, Los Angeles; SAMUEL H. BUTEAU, Oakland; WM. FITCH CHENEY, San Francisco; A. M. GARDNER, Belmont; W. J. G. DAWSON, St. Helena.

SURGERY AND ANATOMY.

STANLEY STILLMAN, San Francisco; JULIUS ROSENSTIRN, San Francisco; W. LE MOYNE WILLS, Los Angeles; G. A. WHITE, Sacramento; D. D. CROWLEY, Oakland.

OBSTETRICS.

D. A. HODGHEAD, San Francisco; EDWARD N. EWER, Oakland; GEO. L. COLE, Los Angeles; GEO. A. HARE, Fresno; W. N. SHERMAN, Merced.

GYNECOLOGY.

B. MCMONAGLE, San Francisco; WALTER LINDLEY, Los Angeles; E. E. KELLY, San Francisco; A. LILIENCRANTZ, Oakland; W. A. BRIGGS, Sacramento.

PEDIATRICS.

GEORGE H. EVANS, San Francisco; W. A. EDWARDS, Coronado; C. W. NUTTING, Etna Mills; FRED G. BURROWS, San Francisco; E. W. TWITCHELL, Sacramento.

EYE.

H. BERT ELLIS, Los Angeles; VARD H. HULEN, San Francisco; J. A. BLACK, San Francisco; GEO. C. PARDEE, Oakland; B. J. POWELL, Stockton.

EAR, NOSE AND THROAT.

H. L. WAGNER, San Francisco; W. F. SOUTHARD, San Francisco; WM. ELLERY BRIGGS, Sacramento; DENNIS J. ARNOLD, San Francisco; W. S. FOWLER, Bakersfield.

GENITO-URINARY.

LOUIS BAZET, San Francisco; R. L. RIGDON, San Francisco; JNO. C. SPENCER, San Francisco; A. P. WOODWARD, San Francisco; M. KROTOSZYNER, San Francisco.

CUTANEOUS DISEASES.

D. W. MONTGOMERY, San Francisco; HOWARD MORROW, San Francisco; MARTIN REGENSBURGER, San Francisco.

NERVOUS AND MENTAL.

H. G. BRAINERD, Los Angeles; A. E. OSBORNE, Santa Clara; H. E. SANDERSON, Stockton; A. W. HAISHOLT, Stockton; LEO NEWMARK, San Francisco.

HYGIENE, SANITATION AND CLIMATOLOGY.

P. K. BROWN, San Francisco; H. A. L. RYFKOGEL, San Francisco; JNO. M. WILLIAMSON, San Francisco; MARY E. RITTER, Berkeley; M. GARDNER, San Francisco.

PATHOLOGY AND BACTERIOLOGY.

WM. OPHÜLS, San Francisco; STANLEY P. BLACK, Los Angeles; MAURICE W. BROWN, Alameda; HERBERT MOFFATT, San Francisco; G. E. EBRIGHT, San Francisco.

CHEMISTRY AND PHYSIOLOGY.

RAY L. WILBUR, Stanford University; CARL R. KRONE, Oakland.

MEDICAL LEGISLATION AND EDUCATION.

HENRY GIBBONS, JR., San Francisco; W. S. THORNE, San Francisco; JAS. H. PARKINSON, Sacramento.

SCIENTIFIC PROGRAM.

J. HENRY BARBAT, San Francisco; P. M. JONES, San Francisco; DUDLEY TAIT, San Francisco; W. F. B. WAKEFIELD, Oakland; WALLACE I. TERRY, San Francisco.

NOTICE TO ALL MEMBERS

Under Art. VI, Sec. 6, of the new Constitution and By-Laws, all members intending to present papers at the next meeting of the State Society, April, 1903, MUST send their papers to the Chairman of the Committee on Scientific Program ONE MONTH BEFORE THE DATE OF THE MEETING. The papers must be examined by this committee and abstracted for the program, which program must be made up at least fifteen days before the meeting. At the last meeting of the Society it was voted to strictly adhere to this requirement, so that if your paper is not sent in by the fifteenth of March, it can not be presented to the State Society at the meeting in April.

SEND YOUR PAPERS TO DR. J. HENRY BARBAT, Chairman, 590 Sutter Street, San Francisco.

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Publication Committee:

Philip Mills Jones, M. D. George H. Evans, M. D.
Henry Gibbons, Jr. M. D. Dudley Tait, M. D.
Charles D. McGettigan, M. D.

Office of the Journal, - - - - 31 Post St. San Francisco

JANUARY, 1903.

EDITORIAL NOTES.

COVERT ATTACK ON MEDICAL LAW.

The information has reached the JOURNAL from Sacramento, and in a manner that admits no doubt of its accuracy, that a bill has been sent to the Legislature designed to secure new medical legislation. The exact title of the bill is not yet known, but in the information it was called, "A Bill to Regulate the Practice of Medicine, etc." As there is already a medical law in operation in this State, it is evident that this new bill must aim to in some way modify some features of the existent bill, or to entirely supplant it.

The JOURNAL knows perfectly well that no committee has been appointed from the Medical Society of the State of California looking to any addition to or modification of the present law, for the Society and those it represents are, so far, thoroughly satisfied with this law and the way its provisions have been administered. The Society believes, on excellent grounds, that this law is forcing a better preparation on the part of those who wish to practice medicine in California, and that it will, in not many years, elevate the standard of medical practitioners all over the State. Therefore, this new bill must be proposed by some who are inimical to the present law, and who consequently stand for *no* progress, *no* improvement, and even for deterioration.

The JOURNAL makes no suggestion as to who this person or group of persons may be—each reader can easily make his own inference; but whoever it is, he or they have arrogated to themselves the right to legislate for the whole profession. They are attempting to have laws of their own framing, suited to their own motives, thrust upon the entire medical body, and this the JOURNAL, in the name and interest of the profession of the State, resents. It is not to be tolerated that any one should presume to have personal or special legislation, either of which amounts to class legislation, foisted on the profession at large.

Under these circumstances the JOURNAL calls on the present Legislature, and on the Governor, to let the medical law of to-day stand as it is. It has been in operation only sixteen months; it has given, as yet, no cause for criticism that was based on any defect in the law or its administration, and while it has been attacked by some, it is not at all to its discredit that it has drawn their fire. The JOURNAL refers to the complaints made of the Board of Examiners, which resulted in the editorial reference in the *Journal of the American Medical Association* of the 4th of October, 1902, and of the second reference in the same journal, on the 25th of October, which latter, upon fuller information, corrected the impression the former would have engendered, and pronounced the complained-of examination entirely fair and reasonable.

This law, given us only by the last Legislature, has kept from the practice of medicine in California about one-third of those who have wished to come here, and has done it upon the grounds of the incompetency of the candidates, and as each candidate's examination paper is a State document as soon as it has passed into the hands of the Secretary of the Board of Examiners, it is, and always will be, easy to substantiate this statement. When the medical profession of California, together with their associates, in the drafting and the securing of the present law come before the Legislature and say that certain changes are wanted for further improvement, so that the standard of the profession may be raised still higher, then let the Legislature and the Governor listen; but until then let them turn a deaf ear always to those who seek to have changes or substitutions made in the law.

It is obvious that this new bill is proposed by some who are, in certain directions, active and secretly so. The new bill, whatever may be its exact form or intent, is an affront to every practitioner of medicine and surgery in California, and this affront must be resented. Each physician or surgeon is earnestly requested to address to the Assemblyman and Senator from his district letters stating that he does not want more medical legislation at this time, and to do this so that the bill may be stopped at once and the stand of California among those States with proper medical laws, properly conserving the interests of the people, may not be jeopardized.

WORD "PATENT" A MISNOMER.

As commonly applied to medicines, the word "patent" is almost invariably a misnomer. What are generally known as "patent medicines," the alcoholic and opiate nostrums, "bitters," "tonics," habit "cures," etc., are not patented; the names they bear, or the labels pasted on the packages, or both, are, however, protected by the patent or copyright laws of the country. If the preparations themselves were patented, and the nostrums thus truly

"patent" medicines, it would be easy for any one who possessed five cents and a desire to know the ingredients of any mixture, to get this information by application to the Patent Office; but this is not the case. Such nostrums as "swamp root," "antikamnia," "celery compound," etc., commonly called and known as "patent medicines," are really not patented; the names they bear and the labels used are controlled, but the ingredients of the mixtures are undetermined. The manufacturers of such nostrums—not actually patented, but called "patent"—are perfectly free to put up anything whatever—kerosene, tar, saw-dust, morphin, alcohol—anything—and still sell the stuff as "swamp root," "antikamnia," "celery compound," etc. In the case of any drug or chemical that is actually patented, however, the conditions are quite the opposite; the specifications on which the application is based and the patent issued call for certain definite ingredients or processes, and these must be complied with, under the terms of the patent grant. Almost any one of the coal tar products may be taken as an example of what is truly a patent medicine. Most of them are chemicals of definite and known formula, and many of them have been accepted by the medical profession as having decided therapeutic value; at least one true "patent medicine" of this sort was included in the last edition of the U. S. Pharmacopeia, and very many of them will be found in the next edition. The advertising censor of one State Medical Society journal has taken the position that any *patented* drug, chemical or preparation may be advertised in its pages, for the reason that the actual formula or composition is disclosed in the patent. Many preparations of the "controlled" variety are excluded from the advertising pages of this same journal on the well-taken ground that the composition of such preparations is known only to the manufacturer, who has not patented the article, but has simply copyrighted the name it bears, and consequently he may put up whatever he chooses under this name. In some journals controlled products or brands may only be advertised if the "quantity of the active ingredients be published," and in the present chaotic state of therapeutics this is about the best that can be done; but it is a comparatively poor best, for the reason that there is nothing to compel the manufacturer to follow the formula which he has published in part. Indeed, in many instances, either through litigation or otherwise, it has been found that the actual working formula was quite different from the supposed and published formula, and this is undoubtedly true of numerous other preparations, though the facts have not been disclosed. Nor does the dispenser of a true "patented" drug always supply the actual substance called for in the patent and presumably put up by the manufacturer. We are advised on excellent authority that thirty-five samples of aristol were recently purchased from retail druggists in different parts of the country and analyzed. It was then found that but few of them were actually aristol. One contained 65 per cent of caustic alkali; others contained starch, dirt, and various adulterants. The article is not in the present Pharmacopeia, and as there is no recognized standard for it, the pharmacist dispensing the fraudulent product cannot be reached; were it officinal the position would be somewhat better. But the U. S. Pharmacopeia goes only a small way toward remedying the evil. It is a book of standards and formulæ that may or may not be followed by the pharmacist, either manufacturing or retail, and which deals not at all with controlled preparations or brands. And, furthermore, the U. S. Pharmacopeia, unlike that of most other countries, is not in any way supported or by statute indorsed by the Government and made compulsory upon the manufacturer. The only apparent remedy for these serious evils seems to be lying dormant in the hands of the medical profession. A carefully selected and properly qualified board of experts, backed by an organized and united medical profession, and given authority to demand in the name of the whole profession that recognized standards of strength, purity and formula be adopted and followed by all manufacturers and dispensers of the various materials used in the practice of medicine, would speedily effect a very decided reform and would bring at least partial order out of the present absolute chaos.

STATE SOCIETY APRIL MEETING.

The next meeting of the State Society promises to be the best attended and one of the most successful meetings we have ever held. It will be the first meeting under the plan of reorganization, and as the changes—particularly in the way of transacting business—are many and radical, it will be looked forward to with much interest. All the business of the Society will be transacted by the delegates elected by the affiliated County Medical Societies; it is vitally important, therefore, for these county societies to see to it that their delegates are duly elected in ample time for the Secretary to prepare his lists. The secretaries of county societies must also send to the Secretary of the State Society a certified list of the officers, members and delegates, together with a remittance of $1.00 for each member, at least two weeks before the date of the annual meeting. As there will be considerable work for the Secretary to do, it is urged upon the secretaries of affiliated societies that they send in these reports and the proper remittance

as early as possible, and not delay until the last minute. It must also be borne in mind that *The papers or reports to be read, or a copy thereof, shall be placed in the hands of the Committee on Scientific Program at least fifteen days prior to date of annual meeting.* (Art. VI, Sec. 8, By-Laws.) Every member of the Society intending or desiring to present a paper at the next meeting should read carefully Sections 6, 8 and 9, of Article VI, of the By-Laws, for at the last meeting of the Society it was determined that the provisions of these sections should be rigidly enforced. The chairmen of the various "scientific committees" must send, at least thirty days prior to the date of the annual meeting, the names of authors and the titles of papers to be presented in their various sections, to the Chairman of the Committee on Scientific Program. The chairman of this committee is Dr. J. Henry Barbat, 751 Sutter street, San Francisco, and it would be well for the section chairmen to correspond with him in regard to program as early as possible. There will be a certain amount of misunderstanding in any event, but these facts are here reiterated with the hope of somewhat lessening it.

PROTECTION FOR PRACTITIONERS.

The Philadelphia County Medical Society, at its regular meeting, on October 15, 1902, adopted the following (*infra*) article as an addition to its Constitution and By-Laws. The full text is here given, and its careful consideration by all physicians of the State is earnestly urged. The New York County Medical Association has provided for similar protection to its members, and as a result, malpractice suits have become unpopular. In most cases suit for alleged malpractice is nothing more nor less than an attempt at blackmail, under the belief that the physician sued would rather compromise than be put to the trouble and expense of defending a long, tedious suit. A well united local profession, banded together with the avowed intention of protecting its members against these attempts at blackmail, will come very near to abolishing such suits, and this at no expense whatever. The mere moral force of a powerful organization to be fought, instead of a suit against an individual, will deter the majority of would-be extortioners from filing suits that could not be won. The State Society might easily undertake this work, and the burden upon its members would be so trifling that it would never be felt:

Section 1. Within fifteen days after the business meeting, in January, the Board of Directors shall appoint an attorney-at-law for the term of one year, who, in addition to representing this Society in all suits for malpractice and threats against its members, as hereinafter provided, will assist the District Attorney in prosecuting illegal practitioners of medicine and represent the Society in other legal matters.

Sec. 2. The Board of Directors may, upon request, and in compliance with the conditions hereinafter named, assume the defense of suits for alleged malpractice, brought against members of this Society.

Sec. 3. The Board of Directors shall not undertake the defense of any suit based upon acts prior to the qualification of the accused as a member of the Society.

Sec. 4. Any member desiring to avail himself of the provisions of this article shall first present his case to the Board of Censors, who shall decide upon the validity of his claim. He may then make application to the Board of Directors, through the Secretary, shall sign a contract renouncing his own and vesting in the Board of Directors sole authority to conduct the defense of said suit, and shall make such other agreements as the Board of Directors may require; *Provided*, that nothing in the foregoing shall conflict with united action in the defense by the officials of any corporation, organized for the specific purpose, with which a member may be connected.

Sec. 5. The Board of Directors shall thereupon contract with said applicant to take full charge of said suit, to furnish all necessary legal services, to furnish all medical expert services and to pay all necessary expenses of the accused. *Provided*, that if the accused is insured in a corporation organized for the legal and financial defense of physicians, the foregoing responsibility of the Board of Directors may be divided with said corporation. The Board of Directors shall not obligate the Society to the payment of any damages awarded by decree of court, or upon compromise.

Sec. 6. The Board of Directors shall have authority to name the sum for the compensation of the attorney.

MEMBERSHIP IN A. M. A. DEFINED.

There are probably some physicians of the State who are, or have been, members of the American Medical Association, who do not belong to any County Medical Society in affiliation with the Medical Society of the State of California, though they may belong to some local or unattached medical society through which they joined the A. M. A., prior to its reorganization. Under the reorganization plan, on which both the State Society and the A. M. A. are now working, such men must be dropped from the rolls of the American Medical Association unless they join their County Society, or the nearest County Society that is in affiliation with the State Society. The A. M. A. recognizes but one channel to membership in its body: through the State Society; and as the State Society in turn recognizes only the one affiliated County Society in each county of the State, it is obvious that to hold membership in, or to join the American Medical Association, membership in the affiliated County Society is obligatory. Heretofore there have been a number of such "unattached" members of the A. M. A., but they are being dropped from the rolls just as rapidly as the work can be done, and in a comparatively short time the labor of sifting will be accomplished. The importance of this point must not be overlooked, and every physician in the State

should see to it at once that his position in relation to the County and the State Societies and the American Medical Association is secure. The American Medical Association is growing very rapidly; it is estimated that by the end of the coming meeting, at New Orleans, in May, 1903, not less than 6,000 new members will be upon the rolls. The Association now holds the dominant position in the medical world of this country, and its importance as the one big organization of the American medical profession is growing daily. Very rapidly is it approaching the time when its voice will be listened to with attention in all affairs of national medical or sanitary importance, and its influence will be felt in matters of needed legislation.

Bearing these facts in mind, and remembering that only in union, which here may be taken as synonymous with organization, can the medical profession of the country wield its enormous strength to any advantage, it is clearly the duty of every physician to place himself aright by joining his county, and thus his State Society. At present this does not carry with it membership in the A. M. A., it merely secures, and is the only way of securing, his eligibility to membership in the Association. In all probability, however, the complete plan of reorganization will go into effect, and then membership in the County Society will carry with it not only membership in the State Society, as at present, but also membership in the American Medical Association. Don't wait to think about it for a few years, nor to see what some one else is going to do, but see that you are a member of the State Society before April, 1903, overtakes you.

PURE FOOD BILL IN CONGRESS.

Another pure food bill has been introduced into Congress and has passed the House. A limited canvas of the opinions of a few Eastern manufacturers who may be regarded as more or less directly interested in this and similar measures, discloses an almost unanimous belief that the bill will not become a law. It attacks the questions of adulterated foods, impure or non-standard drugs and pharmaceuticals, and all products intended for human consumption that are wrongly labeled with intent to deceive, or in such a way that the buyer may be deceived. Regulation and control of the products included in the provisions of the bill will be attempted through the power of Congress to regulate commerce between States. It is provided that no adulterated or impure product may be shipped from one State or Territory to another; the penalty is confiscation. The bill also provides for the creation of a commission to pass upon questions as to harmlessness of certain preservatives, relative and actual "purity," and, in fact, all points of dispute which may arise; and their judgment will be final. Even should this bill become a law, which is very doubtful, it will remain to be seen how much good may be accomplished under it. At the present time practically every State in the Union has upon its statute books one or more "pure food" laws, and the Federal Government requires "meat inspection"; yet these laws are, in most cases, practically inoperative; a U. S. Pharmacopeia is carefully prepared and revised and published; yet there is nothing to enforce its requirements. The manufacturer goes merrily on his way, dyeing his sausage, putting corn meal in his mustard, turnip in his horseradish, starch and other things in his black pepper, and making up his pharmaceuticals as he pleases; State or National legislation bothers him but little, if at all, for he knows by experience how little is the actual weight of such legislation as against his dollars. The only practical solution of the difficult problem seems to be in banding together the honest manufacturers—the men who are really putting up good products and who are struggling against competition—and after a sufficiently careful examination by a disinterested but properly qualified board of experts, having national standing and support, issuing or authorizing a guarantee of the purity or standard of their products. This would merely be the logical carrying out of the plan for a National Bureau of Medicines and Foods, composed of and controlled by the professional men of the whole country, as suggested by Dr. F. E. Stewart and endorsed by the American Medical Association. An outline of Dr. Stewart's plan—or at least a suggestion of it—was published in the last number of the JOURNAL. Active steps are being taken to crystalize these theoretical plans and actually form such a board or "bureau." But one thing is necessary to the absolute success of such an attempt—professional organization and support; not financial support, but live interest in the questions at issue. This is but one of the many professional and humanitarian measures that *ORGANIZATION* will make possible.

Organization of the professional men of this country means more than the vast majority of physicians dream; it means proper and adequate legislation, both State and Federal, in the matter of qualifications for medical practice; suitable sanitary and quarantine measures; the control and enforced production of pure drugs, pure pharmaceuticals of pharmacopeial standard, pure foods or foods so labeled as not to deceive the purchaser, and most of all, would mean, in a little time, a proper control of the deadly "nostrums," "tonics," "bitters," and "cures." The duty of organization is not alone to ourselves, but to the people of the whole country—it is not selfish, it is humanitarian.

PROF. LORENZ AND HIS CLAIM.

In a short address, made by Prof. Lorenz at a reception tendered him by a number of prominent surgeons in New York, the plea for "bloodless" orthopedic surgery was put forth and strongly urged on the assumption, stated as fact, that it places the life of the patient in less jeopardy than does "bloody" surgery. In fact, Prof. Lorenz, particularly in his talks at clinics in the East, has more and more strongly urged this claim of lessened danger as one of the principal advantages of the "bloodless" operations. Viewing the question entirely dispassionately, it seems well to ascertain, if possible, whether the advantage claimed is founded on fact, or whether it is more conjectural than real. Given a healthy patient—one not suffering from local or general infection—and the dangers attendant upon any recognized surgical operation performed under strict aseptic conditions are confined to "surgical shock" and death from anesthetic, both of which untoward possibilities have been reduced to a minute percentage in recent years. In practically all cases in which bloodless orthopedic surgery is recommended, or can be practiced, the patients are healthy in the sense that they have no local nor general infection. The anesthetic is a common factor—is necessarily employed in bloodless as well as in bloody operations; there remains "surgical shock," and the question as to whether the shock is greater when a quick, clean incision is made through resistant tissues, or when these tissues are stretched, torn and mauled by the unseeing hands of the operator. There is some evidence tending to substantiate the belief that somewhat more shock is produced by the, let us say, "strenuous" manipulations required in bloodless operations than is caused by bloody operations. Prof. Lorenz does not seem to be justified in claiming lessened danger to the life of the patient for his operations. Whether or not the claim of better results is well founded, will be demonstrated in due course, and is, intentionally, not here discussed.

INEXCUSABLE DELINQUENCY.

Fifty-three members of the State Medical Society owe $320 for dues. Almost half of this number reside in San Francisco, within easy reach of the Secretary's office. A fair proportion of them are in the habit of keeping a little in arrears all the time. Just why this condition of affairs should exist is difficult to say. But the amount is considerable for the State Society to lose. It may be that these members are financially unable to meet their obligations. This is probably the case in a certain number of instances, when it would be only right that the Society should remit the dues, if the Secretary were informed of the fact.

Under the old Constitution and By-Laws a member in arrears to the amount of two years' dues could be dropped from the membership roll. Provision for dealing with delinquents was, however, overlooked by the committee who had the revision of our Constitution in charge. There being no way of dealing with these members, it becomes a matter of personal honor with each of them. If they will not pay the Society what they owe, of course they will be privileged to retain their membership by virtue of membership in an affiliated County Society. We do not think there is a member in the State Society, or the medical profession in California, who would adopt this method of repudiating a debt. A considerable number, however, remain delinquent because they are too careless to send in the amount of their dues, notwithstanding the fact that communication after communication has been sent to them by the Secretary, 807 Sutter Street.

THE JOURNAL ADVERTISERS.

Every periodical in which advertisements are published assumes a double responsibility; on the one hand to the subscribers, who presumably read its pages of text, and on the other hand to its advertisers, who look for advantage through being presented to the notice of the readers. In no case does a publisher *guarantee* to an advertiser any enhanced sales; there is no obligation save that of assuring a certain circulation—a specified number of subscribers. . Some publishers do not consider that they have any moral responsibility in the matter of advertising, and consequently accept whatever is offered, so long as it is paid for; others recognize the fact that their subscribers may be swindled through the false claims of unscrupulous manufacturers or dealers, and therefore exercise a more or less rigid censorship of the advertising matter submitted. This journal, being the official publication of the Medical Society of the State of California, will see to it that, so far as it may be humanly possible, both the members of the Society and the advertisers of the JOURNAL, are protected; the former from appeals to make use of unethical preparations, and the latter from the injury which comes from corrupt association. The JOURNAL will endeavor to publish advertisements only of honest and reliable firms. In the case of remedial agents or preparations, the exact quantity of the active ingredients must be known or published, and no obviously extravagant claims for impossible therapeutic value will be permitted. Any one who is induced to purchase something advertised in the pages of the JOURNAL, and who finds that the article is not what it was therein represented to be, will confer a favor upon the Publication Committee and the editor by promptly reporting all the facts.

CORRESPONDENCE.

POST OCCIPITAL LYMPHADENITIS. IS IT A PRODROMAL SYMPTOM OF CHICKENPOX?

California State Journal of Medicine—On November 9, 1902, I was called to see a lady complaining of general malaise, headache in occipital region, tenderness and swelling of post occipital lymphatic glands and fever (temp. 101½), with no good explanation for either of the two latter symptoms. Palliative treatment prescribed and no diagnosis given the patient, nor made for myself, for the time being. In the afternoon of the same day a trained nurse, who was in attendance upon several nieces and nephews of my patient suffering from chickenpox, called and laughingly said, "I guess you are in for the chickenpox. Each of the older children complained exactly that way the day before they broke out." Inquiry afterward developed the truth of the statement with regard to four children, though no particular attention was paid to the remark at the time.

The next day when I called I found the eruption of chickenpox out over chest and arms and back well marked and typical. Gland tenderness and enlargement disappeared the second or third day, and eruption ran a simple and regular course.

On December 10, 1902, I was telephoned to by a lady patient, who asked what could give her such headache in the back of the head and make the glands just at the edge of the hair swell and become very tender. I asked if she had been exposed to chickenpox, and she replied, "We spent the evening one week ago with neighbors whose children were down with chickenpox." Next day the disease was well developed in her, a number of perfect vesicles having put in an appearance. Some few had accompanied the head pain and glandular derangement, but no temperature record was taken.

I can find no mention of such prodromal symptoms in any of the authorities at my command, and venture to publish the account of them in order to stimulate a watch for them amongst my colleagues, so as to determine whether they be connected with the disease, or are mere coincidences.

HENRY MAY POND.

Alameda, December 18, 1902.

It is interesting to note the occurrence of this symptom in several consecutive cases. Rarely have these glands been noticed as enlarged and tender. Varicella has been regarded as a disease notably free from definite prodromal symptoms, so much so that Henoch regards all symptoms during the invasion stage as accidental. In fact, the absence of prodromal symptoms has been one of the diagnostic points of varicella. Hyde in observing twenty cases at the Chicago Children's Home found no sign or symptom before the eruption. From its rarity, for it has been rarely observed together with sore throat, it would seem to be accidental and its diagnostic significance of doubtful value, if any. Rather is post auricular and occipital lymphadenitis a diagnostic symptom of rötheln; in fact, in this disease enlargement and induration of these glands may be considered as one of the most diagnostic signs. Its occurrence is almost constant. Klaatsch in "Ueber Rötheln" (*Zeitschrift fur Klinische Medecin*) states that so constant was this symptom in an epidemic, that, knowing that he had a case of exanthem to deal with, could diagnose the case in the dark by touch alone. The lymphadenitis appears often as a prodromal symptom, the glands remain swollen for a day or two after the rash appears, and then subside. In rötheln the toxins seem to have a selective action for these glands, yet this symptom loses some of its importance from the fact that in measles, also, post cervical lymphadenitis occurs, though seldom, nor does it reach the extent that it does in rötheln.

G. H. E.

San Bernardino, Cal., December 25, 1902.

California State Medical Society, San Francisco, Cal.—Gentlemen: I have received the December number of your JOURNAL. Have scanned it over. One item especially, on page 35, "Affiliation of the County Societies," attracted my attention. Upon this subject I agree with you *caeteris paribus*. But to say what I wish to convey, I shall have to preface my remarks by saying that the so-called "Medical Society of California" consists largely of the doctors of San Francisco and bay counties around San Francisco. It is true there is no direct prohibition of outsiders, but the management of that Society is such that it does prohibit us from participating in its affairs. We are invited to come there, pay our dues, and then be "wall flowers" the balance of the session. Those who rate themselves as our superiors in all things, and medical subjects especially, have the floor. I have been in the medical profession many years; a member of the American Medical Association nearly as many years; was a member of the State and County Association before I came to California. I was admitted to membership in what is termed the "Medical Society of the State of California" in the year 1890. I am now a member of the San Bernardino County Medical Society and of the Southern California State Medical Society.

Soon after I was admitted to membership in your Society I offered a paper, but was politely informed that "there was no room for me." I pocketed my insult and discontinued paying dues, and, of course, my name was dropped from the roll of the Society; but as time wore on I hoped matters had changed. Having frequently received invitations to meet with you, last spring I concluded to again participate in the affairs of the Society by reading a paper. I so advised the president and he kindly referred my request to a committee (investigation, I presume). After waiting many days I was advised that "there was no room for me." It is needless to say that I was not at the meeting of the Association.

Gentlemen, there is one way of getting the county associations outside of the bay counties, and especially, in Southern California, to participate with you, viz: make your Association in fact what it is in name. If the Big Guns in the city of San Francisco must display their erudition to each other, they should flock together in an association under a different name as a distinguishing mark of their ability.

We have two good societies in this county, one local and the other the San Bernardino County Medical Society. When we are accorded equal treatment with the Large Guns we will come in with you and not be slow in pushing the cause of our profession

forward and do our best to secure such legislation as is indorsed by a majority of the Association.

I have no doubt you have noticed that you have had but few communicating "wall flowers" from this "neck of the desert." I have the honor to be

Most respectfully yours,

J. M. HURLEY, M. D.

The first point raised in the foregoing letter is made under a misapprehension of the facts. The Medical Society of the State of California is "composed largely of doctors of San Francisco and bay counties around San Francisco," but only because there are more members of the profession residing in that than any other section of the State. The membership of the bay counties, including San Francisco, Alameda, San Mateo, Contra Costa, Sonoma and Marin is 439. Almost every county in the State has representation in the State Society, and it is not the fault of the Society that every regular physician in the State is not enrolled.

As to the charge that delegates from other sections of the State than San Francisco are prohibited from participating in the affairs of the Society, the claim scarcely merits serious attention. The Constitution and By-Laws of the Society are constructed on the broadest possible lines. At the last meeting of the Society its deliberations were participated in by members from the various parts of the State, and the one delegate to which the State Society was entitled to represent it at the last meeting of the American Medical Association came from Southern California.

It sometimes happens that papers sent in to the Committee on Program are declined, and for various reasons. The paper might be too long, it might be unethical, it might be inappropriate, it might be vituperative, it might be declined for many other reasons—and it might be declined because it had not been sent in to the committee in time to be placed on the program.

If the medical profession of the State of California is ever to be united, that desirable end will not be brought about by sectional strife nor by jealousy of the attainments of the eminent men in the profession. The aim of the State Society is to unite the county societies in a harmonious whole, not to disrupt. Any attempt by a section of the State to arrogate to itself the management of the Society, or to force the adoption of sectional measures, would be regarded with distrust by the Society, and by no one more strongly than the members from San Francisco and vicinity.

It is true the JOURNAL has received few communications from "wall-flowers from this neck of the desert," but it is to be hoped future communications from that section will evidence a more friendly feeling toward the State Society.—ED.

IN MEMORIAM.

DR WALTER REED, A. M., LL. D., born September 13, 1851; died November 23, 1902—A Memorial Meeting held in Washington, D. C., December 31, 1902—Reported by PHILIP MILLS JONES.

In honor of the memory of Dr. Walter Reed, U. S. A., a memorial meeting was held under the auspices of the Medical Society of the District of Columbia on the evening of December 31st. An introductory address and eulogy was delivered by the President of the Society, Dr. Samuel S. Adams. Dr. Adams dwelt principally upon Dr. Reed's connection with the District Medical Society and the stand he had taken upon the subject of diphtheria and the antitoxin treatment, as generally recalling and indicating Dr. Reed's foresight and steadfastness of purpose. Dr. Robert A. Marmion, Medical Director U. S. Navy, presented a biography of Dr. Reed that exhibited very careful preparation. Dr. Reed received his first medical degree after one term of nine months, from the University of Virginia; he afterwards took a second medical course and degree in New York, also in one term. Later he entered the U. S. Army and had a varied experience at the small western army posts. Dr. Jesserson Randolph Kean, Surgeon-Major U. S. Army, delivered an address on the subject of "Dr. Reed as an Army Officer," and testified to his high character as an officer and a gentleman as well as a distinguished scientific worker. Prof. A. F. A. King addressed the meeting upon the subject of "Dr. Reed as a Teacher in the Columbian University Medical Department." Professor King mentioned the fact that at a dinner of the naturalists, held the night before, something was said about Dr. Reed's work and scarcely any one present knew of Dr. Reed or his wonderful achievement. When the story of Reed's work was told, however, it was very warmly received and the suggestion made to start a collection at once for a permanent memorial to his memory. Further counsel prevailed, and it was decided to refer the matter to the American Association for the Advancement of Science, then meeting in Washington. This point was brought up by Dr. King to show how little the people, even scientific men, knew of the exceedingly valuable work that this quiet, modest, unassuming scientist had achieved. Dr. Charles W. Stiles, U. S. M. H. S., had prepared a full biography of Dr. Reed's works (which was not read), and said a few words in regard to the small number but great value of his published writings. On the subject of the "Work of Dr. Reed in Cuba," General Leonard Wood, U. S. Army, spoke very feelingly. He said, in part: "I know of no other man on this side of the world who has done so much for humanity as Dr. Reed. His discovery of the means of transmission of yellow fever, and the method of removing it, has effected the saving of lives annually in excess of all those lost in the Spanish War, and a saving in money annually in excess of the whole cost of that war. He came to Cuba at a time when we had done everything that could be done to clean Havana, yet yellow fever was still epidemic. As a result of his work that terrible scourge was absolutely abolished. Later, in a month when ordinarily yellow fever had been worst, he checked the disease and drove it from Havana. That was the first time in 200 years that Havana had been free from the disease." Professor William H. Welch closed the meeting with an address upon Dr. Reed as a scientist and a benefactor to humanity. Dr. Welch referred to the natural ability of Dr. Reed as an investigator and his hard study and solid training. He said that Dr. Reed possessed the mental and physical

tools that make a fully equipped scientific investigator, and that his clear, well balanced and thoroughly logical mind made him pre-eminently able to handle the important questions involved. He knew that Dr. Reed fully recognized and did not shirk the responsibility of the experiments upon human beings which he had conducted, and that this responsibility often weighed heavily upon him. In his opinion the work of Dr. Reed could be placed only with the discoveries of anesthesia and vaccination, and in its importance to humanity would stand second to no other achievement in the history of medical science. It would probably be a matter of many years before the full value of Dr. Reed's work would be recognized by the world.

The American Association for the Advancement of Science, at their meeting in Washington January 1st, passed resolutions on the death of Dr. Reed, reciting his achievements and recommending that Congress make suitable provision for the support of his family.

DEATHS.

After an illness of several months, Dr. Joseph R. Laine died on December 15th at the German Hospital. He was born in Canada in 1846 and came to the United States when four years of age. He was a graduate of Rush Medical College, Chicago, and later took a post-graduate course at the University of Buffalo. He commenced practice at Peoria, Ill., in the spring of 1868. Shortly afterward he removed to Nebraska and practiced there until the spring of 1873, when he accepted a position in the United States army as acting assistant surgeon. In November, 1875, he resigned from the army. Shortly after leaving the army Dr. Laine came to California and for a time had charge of the City and County Hospital at Sacramento. When the College of Physicians and Surgeons was first incorporated, Dr. Laine was made its president, but three years ago he resigned that position and severed his connection with the college.

Dr. R. H. Clement, professor of anatomy at the Hahnemann Hospital Medical College, died Tuesday night, December 23d. The deceased had suffered for many months with a complication of diseases. He was born in San Francisco and was 32 years of age at the time of his death.

Dr. E. W. Bradley, of East Oakland, died suddenly at Grass Valley on December 28th. Dr. Bradley was at one time health officer of Oakland.

Dr. Robert E. Williams, who was recently mustered out of the service as Captain and Assistant Surgeon in the Medical Corps of the Army, died at the general hospital December 30th. He had been suffering from cirrhosis of the liver and valvular disease of the heart. Dr. Williams had been in the Army ever since the outbreak of the war, serving in 1898 and 1899 as a contract surgeon and was mustered out on the 30th of September.

The President of Leland Stanford Junior University has sent the following letter to the President of the State Society, which will be read with interest by members who expect to be present at the Santa Barbara meeting:

STANFORD UNIVERSITY, Nov. 19, 1902.

Dr. F. B. Carpenter, San Francisco—Dear Sir: If I can possibly get away I shall be glad to attend the meeting of the Medical Society at Santa Barbara, in which case I shall be pleased to speak on "The Preparation for the Study of Medicine."

Very truly yours,

DAVID S. JORDAN.

A CASE OF PROGRESSIVE MUSCULAR ATROPHY OF SPINAL ORIGIN.*

By HENRY HARRIS, M. D.

Instructor of Physical Diagnosis at Cooper Medical College.

THE patient presents the typical findings of Progressive Muscular Atrophy of Spinal Origin. There are several points of particular interest in the case, especially concerning the etiology.

The patient is an American, 30 years old; by occupation a bookkeeper and miner. He presented himself on September 12, 1902, for treatment at the Cooper Medical College Dispensary. His complaint is "rheumatism of the hands and arms." The family history is negative; personal history is negative to syphilis and alcoholic excess. For three years the patient was a University student. During the past four years he has been in Yukon Territory, prospecting about the creeks in the vicinity of Dawson. He was, naturally, subjected to low temperatures and to many hardships, but always enjoyed good health up to last spring.

His present illness began in March, 1902, in the following interesting way: The patient was prospecting on his mining claim, forty-one miles from Dawson, when he received a telephone message from a friend at Dawson asking him to come there at once. This he did, walking very fast or running the whole forty-one miles, excepting a distance of ten miles, ridden in a sleigh. At the beginning of this journey the thermometer was at zero; during the journey, however, it grew still colder, so that upon his arrival at Dawson the thermometer registered 40 degrees below zero. He suffered at this time from general fatigue and chilling. Upon attempting to undress himself that night he had to summon help, stiffness and numbness of the hands having been extreme. The following day he was better, though still sore. After this fatigue had disappeared, he was well until two weeks after his severe journey. He then noticed awkwardness in movement, numbness with fibrillary contractions in both hands, more marked on the right side. At the end of a month atrophy and loss of power were noted. Three months after the outset the disease had developed to its present degree. At no time has he suffered pain. During two weeks in July he was treated at Dawson, and not improving, came to San Francisco.

Upon examination the following conditions are found: Intelligence is very good. He is six feet in height, of strong frame and well muscled, except in the affected regions. The thoracic and abdominal organs are normal. Interest attaches only to the muscular and nervous apparatus. The pupils react to both light and

* Presented before the San Francisco County Medical Society, October 14, 1902.

accommodation; movements of the eyeballs are normal, and the muscles of the face and tongue are likewise normal. The muscles of the thorax abdomen, back and lower extremity are normal. The calf,peroneal and gluteal muscles show neither hypertrophy, pseudo-hypertrophy nor atrophy. The upper extremity shows, however, in a marked degree the typical findings of this disease. Thenar eminences, interossei and lumbricales muscles of both hands are very much atrophied. The interosseous spaces on the dorsum of the hands and the flexor tendons on the palmar surfaces are prominent. The flexors of the left forearm are completely atrophied; those of the right forearm are also atrophied, but in a less degree. The extensors of the forearm on both sides are much atrophied, especially on the right side. Both biceps and both deltoids show wasting and there is corresponding loss of power. The patient's grip is very weak—formerly he prided himself on his ability to squeeze the dynamometer so that the indicator was driven far out. He is learning the trick of compensation, calling into action those groups of muscles less affected. Finer movements are very awkwardly done, but he can still button his clothes and is able to give himself a daily hypodermic injection of strychnin sulphate.

In the affected muscles fibrillary contractions are commonly seen, and, as stated, were noted by the patient at the onset of his illness. The triceps and supinator longus are very slightly, if at all, involved. The paralysis is entirely flaccid, and the tendon reflexes are still present. Upon testing the upper extremity electrically the following results are obtained: The flexors of the forearm, the abductor brevis pollicis, flexor brevis pollicis and opponens pollicis of the left side do not respond at all to either faradic or galvanic stimulation. The abductor brevis pollicis and opponens pollicis of the right side are olso without response to stimulation. The dorsal interossei of the right side respond to galvanic, but not to the faradic current. The strength of current necessary to elicit contraction in the remaining muscles of the upper extremity is in general greater than normal. Nowhere is the anodal closing contraction (A. C. C.) greater than the cathodal closing contraction (C. C. C.). A typical slow, "lazy," contraction was not found. Stimulation of the nerve trunks directly gives response except in the case of the left median. Sensation of touch, pain, heat and cold are unaffected throughout, as is also the muscular sense.

To summarize, then: (1) Marked atrophy, with flaccid paralysis in most of the muscles of the upper extremity, particularly in those of the hands. (2) Definite electrical changes, mainly quantitative, in certain of the affected muscles. (3) Absolutely no objective sensory disturbance, the only subjective one being slight numbness.

The diagnosis of this case is made on the typical distribution of the atrophy, the absence of sensory disturbance and the history. These features exclude professional palsy, post rheumatic paralysis and syringomyelia—excepting those rare cases of the latter disease where atrophy alone occurs, the gliosis affecting only the anterior horn. But the distribution of the atrophy is so extensive and so typical, that in the absence of sensory involvement, we can feel sure that we are not dealing with syringomyelia. Spinal caries is excluded by the absence of any signs of this disease in the spinal column and the absence of both sensory involvement and heightened reflexes. Muscular dystrophies are excluded by the distribution of the atrophy, entire absence of hypertrophy or pseudo-atrophy, and by the history. The positive findings are, however, distinctly those of progressive muscular atrophy of spinal origin.

The prognosis is, of course, very bad; recovery does not occur.

The patient's treatment consists of a daily hypodermatic injection of strychnin sulphate, gr. 1-30; with potassium iodid, gr. v, and Fowler's solution, gtt. ii, three times a day. A galvanic current of 6-8 ma. is applied daily for ten minutes, the anode being placed over the cervical spinous processes, and following this the muscles of both upper extremity, chest and back are stimulated and massaged by the electric roller, to which the faradic current is attached. During the four weeks in which the patient has been under observation there has been no change in his condition. The patient is shown particularly because of the definite etiological history of cold, with fatigue.

The regular meeting of the Sacramento Society for Medical Improvement was held on the evening of December 16th at the offices of Dr. Dufficy. The subject for the evening's discussion was "Something New in Abdominal Surgery," the discussion being opened by Dr. T. F. Cox and Dr. W. J. Hanna. Dr. H. H. Look is president and Dr. E. W. Twitchell secretary of the Society, which was organized in 1868 and incorporated in 1878.

And now it is announced unto us that one has come with a microscope and sundry thin glasses and small bottles of curious colors, and, after certain long study and strange manipulations has shown a thing called a germ, which is the germ of laziness. That certainly is good and excellent work, for now we may look for another to come, and after the expenditure of much time and gray matter, provide the world with a "lazinessitic" serum; and then the American people will rush about more wildly than ever.

MEDICAL LEGISLATION IN CALIFORNIA.

By WILLIAM C. TAIT, LL. B.

AS the constitutionality of the Medical Act of 1901 has been attacked in the Superior Court, a certain uneasiness has made itself felt concerning the fate of the law among the better element of the medical profession. This is quite natural when we consider that the overthrow of this particular statute will not revive any prior medical act, as all prior legislation has been expressly repealed, but will mean the entire absence of any regulation of the practice of medicine; and, therefore, the abandonment of the people of California to the very evils which, by the statute, they desired to escape. The object of this paper is to review the medical legislation of California, to call attention to the decisions of our Supreme Court, as well as to some leading cases of our sister States upon the subject, in order to remove any doubt which may lurk in the minds of the friends and partisans of the present State medical law as to its constitutionality. This law, framed with the utmost skill and care, by whom I do not know, but evidently by some mind perfectly familiar with the history of American medical legislation, with our own and foreign judicial precedents, largely remedial in its nature, in many of its features new, as far as California is concerned; yet not radical, but liberal and fair, evidently designed to elevate the medical profession and to give to the people the benefit of the progress of medical science, is perfectly constitutional in all its provisions. This assertion is warranted by the decisions of our Supreme Court, as well as by the decision of the highest legal tribunal in the land—the Supreme Court of the United States—by the elaborate opinion of one of its greatest judges, a California jurist, who, like the framers of the present medical law, had the proper appreciation of the requirements of the medical profession, as well as of the duty of the State in the matter of the regulation of medicine. I refer to the late Justice Field. That the safety of the people necessitates the regulation of the practice of medicine and surgery, and that the State should so regulate it as to adequately protect the citizen, are to-day platitudes. This duty was not recognized, however, by the Legislature of California until 1876.

Medical legislation in California, as everywhere else, has been a growth. Its evolution has been as follows: For more than a quarter of a century California had, in respect to medical legislation, been in a state of nature. The doctrine of *laissez faire, laissez passer* prevailed to its fullest extent. Any person might practice medicine or surgery without either license or diploma, and with perfect impunity. The empiric and reputable practitioner were upon the same legal footing. San Francisco was, in many respects, a wide-open town, at the mercy of the quack, as well as of the gambler and other social parasites. The safety of the people necessitated the regulation of vice. The same necessity caused the regulation of the practice of medicine. Both regulations are emanations of the police power of the State. The Legislature, in 1876, finally put a curb upon the hitherto free and untrammeled practice of medicine. In doing so, it followed the policy and practice of older communities, was actuated by the same motives, and impelled by the same necessity. The Act of 1876, though timely, was relatively late, for medical legislation in the Eastern States is as old as 1636. In England, the first medical statute was enacted in the reign of Henry VIII. You will look a long time before finding this law upon the statute book of 1875-6. The compiler of the volume indexed it under the significant and eminently appropriate title of "Quackery." This popular word expresses the object of the particular statute, as well as that of all similar statutes, so well that it might have been placed in its title.

This Act required every person practicing, or desiring to practice, in California, to possess the qualifications prescribed, and to procure a certificate from a State board of medical examiners, without which no one could legally practice medicine or surgery. The standard of qualifications was "A valid diploma or license from a legally chartered medical institution in good standing," to be verified by one of the boards. Certificates were issued upon such diplomas and licenses. All other applicants were subjected to an examination.

The Legislature of 1876 delegated the right to appoint a board of examiners to "each State medical society," and the boards were empowered to refuse certificates to applicants who had been guilty of "dishonorable or unprofessional conduct, and to revoke them for the same causes."

The Act of 1878 was an amendment to the last named Act. By this Act the Legislature vested the right to appoint boards of examiners in three certain State medical societies, instead of, as before, in each State Medical Society.

The qualifications were made stricter. A diploma or license, as before, entitled the holder to a certificate, but the character of the diploma was improved by elevating the standard of the medical institution. Only such diplomas, or licenses, were recognized as had been granted by "legally incorporated institutions with a full corps of professors, in good faith engaged in the business of

medical education, and in good standing as an institution." The right to an examination was limited to a period of sixty days—eight months under the Act of 1876. The right to refuse certificates to persons guilty of unprofessional conduct, and to revoke them for the same cause, remained, but the Act provided for a trial.

Every person practicing medicine or surgery in the State, except licensees of former boards, army surgeons, etc., without having first procured a certificate from one of the boards of examiners, was, by the penal section of the Act, declared guilty of a misdemeanor. This Act of 1878 was the parent of the present Act of 1901. Although the offspring is greater than its parent, although the spirit of a later age and more advanced stage of civilization and science has stamped itself upon the Act of 1901, yet the force of heredity is clearly discernible in its structure and organism. If the reader will take the trouble of comparing the three medical acts of this State, those of 1876, 1878 and 1901, he will, at a glance, see the evolution of medical legislation in California. The framers of the Act of 1901 had the benefit of judicial precedent, and they were wise enough to take advantage of it. The Act of 1876, as amended in 1878, had been construed and declared constitutional by the Supreme Court of California in three different cases:

Ex Parte Frazer—54 Cal. 94.
Ex Parte Johnson—62 Cal. 263.
Ex Parte McNulty—77 Cal. 165.

We will briefly review these leading cases, in order to show the wisdom of the Legislature of 1901 in preserving the general framework of the Act of 1878, and the reasons for some of the remedial features of the present medical law. This review will also serve a still more useful purpose. It will show that the grounds of the present attack upon the Act of 1901 are, in the main, similar to those directed against the Act of 1878 and overruled by the Supreme Court. Our contention is that as the general framework of the Act of 1878 was held constitutional by the Supreme Court in the above cases, so must the Act of 1901 be sustained for the same reasons—because the general framework of both statutes is practically the same. By the present Act, the Legislature created a single board of examiners. The former boards were thrown into one, but appointed by the same State societies representing the same schools of medicine. Diplomas and licenses are required as before. The board continues to examine applicants, though in a different and more certain manner. It still continues to refuse and to revoke certificates for unprofessional conduct. It is still a misdemeanor to practice medicine or surgery without a certificate, although the penal section of the Act has been made to include those whose certificates have been revoked for unprofessional conduct. The board continues to test the genuineness of diplomas and licenses. Unprofessional conduct has been defined by the Legislature, but it still entails, as before, the loss of a certificate. Medicine has been more carefully defined. But it was defined before. The character of the examination has been determined by the Legislature, even to the system of marking. But the right to examine applicants for certificates was exercised under the Act of 1878.

The present law contains a number of new features; yet these very features are in their nature largely remedial. Their germs already existed in the Act of 1878. In spite of these new features, the organic structure, the general framework, of both statutes are practically the same. Both present "a complete scheme for the examination of diplomas and applicants, and for the prohibition of certificates by others than those empowered by the Act to issue them."

Let us now proceed to review the decisions of our Supreme Court. The leading medical case in California, as well as the pioneer case, is that of *Ex Parte Frazer*—54 *Cal.* 94. All the other decisions merely affirm this case. The decision of the Superior Court in the cases now pending before it will be largely based upon it—because it is the decision of a court of last resort, which has been twice affirmed.

Ex Parte Frazer decided that the general framework of the Act of 1878, as affording "a complete scheme for the examination of diplomas and applicants, and for the prohibition of the certificates by others than those empowered by the Act to issue them," was constitutional; that the boards of examiners which it created, as well as the powers conferred upon them, were likewise constitutional. It also decided that the other provisions of the Act, even if unconstitutional, were not so connected with its general framework as to render the entire Act invalid.

Three years later, in *Ex Parte Johnson*, the same Act weathered a still fiercer storm. Counsel for the accused, in that case, said the Act was not designed to extirpate quackery, but to perpetuate an oligarchy or quackery (by creating an exclusive monopoly in the three State medical societies). He called it arbitrary, unjust and tyrannical. The special privileges accorded to the licensees of former boards, to army surgeons and others, the delegation of judicial power rendered it, in his opinion, plainly unconstitutional. The Act, he declared, also violated the provisions of the constitution prohibiting class legislation. The decision of the Court discloses neither the character nor the terms of Johnson's attack on the statute. In order to see these, it is necessary to consult the records of the court, to look into the brief of Johnson's counsel. The Supreme Court treated the latter rather cavalierly. The brevity of the decision is worthy of Lord Mansfield. "The Court: 'Upon the authority of *Ex Parte Frazer*, 54 Cal. 94, writ dismissed, and petitioner remanded.'"

If the Medical Act of 1878, mild as its requirements were, aroused such animosity as that displayed in the Johnson case, the opposition which the present medical law has encountered on the part of the irregular practitioner, and from cer-

tain more reputable members of the profession, ought to surprise no one. The example of the Johnson case is instructive. It shows that nothing short of no regulation will satisfy the illegal practitioner. It also makes it very clear that legal precedent has little or no effect in these matters. In the course of the last two months, the writer has wandered through numerous adjudications upon the subject of medical legislation—it is no exaggeration to say that they are numbered by the hundred—and everywhere he has encountered the same threadbare argument of the invasion of the natural and the vested rights of the citizen—right to liberty and the pursuit of happiness, right to earn a living, vested right of property in diplomas, medical education, and even to surgical instruments; in a word, to all those inalienable rights of man to insure which Jefferson declared governments were instituted, but which in obedience to a still greater Jeffersonian maxim —the greatest happiness of the greatest number— governments have, in all ages, been compelled to greatly abridge and curtail. The constant recourse to these stale and musty arguments is all the more startling since all of them were expressly reviewed and overruled by Judge Field in *Dent vs. West Va.*, 129 U. S. 114. The authority of the highest court of the country has not been sufficient to check the repetition of such arguments. In spite of the hundreds of decisions sustaining medical statutes against such grounds of attack, the lesson seems yet to be learned that the doctrine of *laissez faire, laissez passer* in the domain of medicine and surgery, as well as in the political domain, drew its last breath years ago, and that the hope that the State will return to it is as vain as it is ignoble and uncivilized.

Ex Parte McNulty sustained the former case of *Ex Parte Frazer* and *Ex Parte Johnson*. But in that case the accused was successful. The penal section of the Act of 1878 failed to make the practice of medicine, after the revocation of a certificate, a misdemeanor. It was not broad enough to cover McNulty's offense. His certificate had been revoked by one of the board of examiners for unprofessional conduct. The language of the penal section was "practicing medicine or surgery without first having procured a certificate." McNulty had procured a certificate, but it had been revoked. The Supreme Court released him upon *habeas corpus* proceedings, not on the ground of the unconstitutionality of the Act, however, or of any portion of it, but because of the failure of the penal clause of the Act to cover his particular offense. In their concurring opinions, Justices Thornton and Paterson thought the section of the Act relating to the refusal and revocation of certificates for unprofessional conduct, by reason of its failure to define that term, unconstitutional. The Legislature of 1901 heeded the opinions of the Judges of the Supreme Court in the McNulty case, and cured both these defects. The penal clause of the new Act became, "without having, at the time of so practicing a valid, unrevoked certificate," as provided by the Act. The Legislature also defined the term "unprofessional conduct," especially enumerating the acts which should constitute it. The present medical Act is a vast improvement upon its parent, the Act of 1878. Its terms are less ambiguous, less discretion is left to the Board of Examiners. The scope of their powers is precisely defined. It also recognizes the principle of comity, on the basis of reciprocity. And yet in spite of its many remedial and novel features, its general character closely resembles that of its predecessor, the Act of 1878. What the Supreme Court said of the latter Act may also be said of the former: "It affords a complete scheme for the examination of diplomas and applicants, and the prohibition of certificates by others than those empowered to issue them by the Act." It also affords a better and fairer scheme. It provides a more certain standard of knowledge and skill, one which takes cognizance of the progress of medical science, a better and more complete system for the prevention of fraud and deception on the public, for the prevention and extermination of quackery and charlatanism; and, aiming, as it does, to elevate the medical profession, the Act gives to the people the benefit of the advance of learning. Altogether, it is one of the best medical statutes to be found anywhere in the United States. It is also a safe law, because it is founded upon the decisions of our own courts of last resort, as well upon those of other States. Like the Act of 1878, it has been assailed. But resting, as it does, upon the solid rock of judicial precedent, it will stand the test. By the three decisions first reviewed, the Supreme Court of this State laid the foundations of the Act. We might say that Judge Field of the Supreme Court of the United States laid the corner stone of this particular medical statute, as well as that of many others. Judge Field said in *Dent vs. West Virginia*:

> The power of the State to provide for the general welfare of its people authorizes it to prescribe all such regulations as, in its judgment, will tend to secure them against the consequences of ignorance and incapacity, as well as of deception and fraud. The nature and extent of the qualifications required must depend primarily upon the judgment of the State as to their necessity. If they are appropriate to the calling or profession, and attainable by reasonable study and application, no objection to their validity can be raised, because of their stringency or difficulty. Few professions require more careful preparation by one who seeks to enter it than that of medicine. It has to deal with all those subtle and mysterious influences upon which life and health depend, requires not only a knowledge of the properties of vegetable and mineral substances, but of the human body in its complicated parts, and their relation to each other, as well as their influence upon the mind. The physician must be able to detect readily the presence of disease, prescribe appropriate

remedies for its removal. Every one may have occasion to consult him, but comparatively few can judge of the qualifications of learning and skill which he possesses. Reliance must be placed upon the assurance given by his license, issued by an authority competent to judge in that respect, that he possesses the requisite qualifications. Due consideration, therefore, for the protection of society may well induce the State to exclude from practice those who have not such a license, or who are found, upon examination, not to be fully qualified. The same reasons which control in imposing conditions, upon compliance with which the physician is allowed to practice in the first instance, may call for further conditions as new modes of treating diseases are discovered, or a more thorough acquaintance is obtained of the medical properties of medical vegetable and mineral substances, or a more accurate knowledge is acquired of the human system, and of the agencies by which it is affected.

It would not be deemed a matter for serious discussion that a knowledge of the new acquisitions of the profession, as it from time to time advances in its attainments for the relief of the sick and suffering, should be required for continuance in its practice, but for the earnestness with which the plaintiff in error insists, that by being compelled to obtain the certificate required, and prevented from continuing in his practice without it, he is deprived of his right and estate in his profession without due process of law. We perceive in the statute nothing which indicates an intention of the Legislature to deprive any one of his rights. No one has a right to practice medicine without having the necessary qualifications of learning and skill, and the statute only requires that whosoever assumes by offering to the community his services as a physician that he possesses such learning and skill shall present evidence of it by a certificate or license from a body designated by the State as competent to judge of the qualifications.

The Act of 1901 also finds support in the leading case of *Allopathic State Board of Medical Examiners vs. Fowler,* 50 *La. Ann.* 1358, a Louisiana case decided in 1898, in which an eclectic physician had been arrested for practicing medicine without having a Louisiana certificate. His particular grievance was that the provisions of the Louisiana State medical law subjected him to an examination by either a homeopathic or an allopathic board, they being the only boards of examiners clothed with authority to issue licenses by the State law. Perhaps also, like his brother eclectic, Dent, in the West Virginia case he had been practicing for a number of years in Louisiana and enjoyed a lucrative practice. The accused contended that the Act violated "all rights, privileges and immunities guaranteed him and vested in him by the Constitution of the United States, especially as regards his privileges and immunities of citizenship, and operates as and is an unjust and illegal discrimination between citizens of different States and of the same State, and is class legislation." All of which was expressly denied by the Court, which said:

> Whenever the pursuit of any particular occupation or profession requires for the protection of the lives or health of the general public, skill, knowledge and other personal attributes or characteristics in the person practicing it, the General Assembly has the power and authority to have recourse to proper measures to insure that none but persons possessing these qualifications should pursue it. A statute to that effect is not open to attack as depriving citizens of their right to earn a living. The right to practice medicine is not an absolute natural right, but a right or privilege to be exercised under conditions and limitations regulated by Legislative authority.
>
> A statute creating a Board of Medical Examiners, to be composed of physicians recommended for appointment from lists to be furnished by the Louisiana Medical Society and the Hahnemann State Medical Society, to be appointed by the Governor on such recommendation, is not open to attack as discriminating in favor of the allopathic and homeopathic schools against the eclectic school of medicine. No constitutional right is given to particular individuals entertaining peculiar theories of medicine to group themselves together, and calling themselves a special school of medicine, under a selected name, to insist that they be recognized and dealt with as such. The recognition by the constituted authorities of another State that a person is properly qualified to practice medicine, and that the medical college whose diploma he presented as evidence of that fact was a medical college in good standing, does not carry with it a valid right in the party to practice medicine in Louisiana. Each State acts independently of the other in this matter.

As the constitutionality of the California Medical Act of 1901 has also been attacked upon the ground that it embraces more than one subject, it may be well to say that a similar objection is disposed of by this same Louisiana decision. Our own statute, by its title, regulates the practice of medicine and surgery, and provides for the appointment of a Board of Examiners in the matter of said regulation. The title of the Louisiana medical statute regulates both medicine, surgery and midwifery. This diversity did not prove fatal to the Act. Upon this point the Court said:

> The Act in question has but one single object—the protection of the public from the consequences of the practicing of medicine in its different branches by unskilled and incompetent persons. The singleness of that object is not broken by the designation in the title of the Act of the different branches of medicine as being intended to fall under, and as falling under, the provisions of the Act. These branches are, in fact, but the fractional parts going to make up the whole subject matter at which the Act is openly aimed, and publicly aimed, or so much of it as the General Assembly considered dangerous. The various sections of the Act have all direct relation to the enforcement of the purpose announced by the Act. The moment they have been found to bear legal relations to the same our inquiries cease, and our duty ends, for it is the province of the Legislature and not of the courts to determine which are the best and wisest methods which should be adopted to accomplish the desired end.

Jefferson, in 1793, wrote to Gouverneur Morris, our aristocratic Minister to France, who, after the downfall of the monarchy, wished to know if he should recognize the revolutionary government of that country, "When principles are well understood their application is less embarrassing. We surely cannot deny to any nation that right whereon our government is founded, that every one may govern itself according to whatever form it pleases, and change these forms at its own will.

The will of the nation is the only thing essential to be regarded."

The principle of Jefferson, expressed in this letter, applies to the regulation of the practice of medicine. In this matter, as in the choice of government, the people may have whatever system of regulation they may think sufficient for their protection. They have had within the last two hundred years almost every kind of system. They may have, as they have had in California, three boards of medical examiners, appointed by the same number of State medical societies, representing as many different schools of medicine, or they may say to the representatives of all three, as in this State, "cease your quarrels and sit in one house," or, as in Louisiana, the people may recognize but two schools of medicine, excluding the eclectic, or, as in Texas, the Legislature may be exclusively allopathic, or, as was done in Minnesota, confer the powers of an examining board upon the medical faculty of a State university. The people may, as in California, define the term medicine, enact that osteopathy is not medicine, and yet require all osteopaths to procure the certificate of an osteopathic examining board. They may say, as in this State, what shall constitute unprofessional conduct, and thus provide a legal code of ethics for the profession. All these things, and more, have been done by legislatures. We may also say that the right of the people to regulate the practice of medicine according to their best judgment has universally been recognized by the courts. In their construction and interpretation of medical statutes, they have followed the maxim of Jefferson. The will of the people has been the pole star of judicial construction. In the interpretation of acts of the Legislature, courts proceed like the surgeon, who aims to save, if possible, but never hesitates to sacrifice useless or hopelessly diseased limbs or organs, if the life of the patient can be saved, or his health improved by the operation. Courts frequently do violence to acts of the Legislature, excising, mutilating, twisting and distorting their provisions, in order to cure their defects and give effect to the will of the people. The example of the Supreme Court of Nevada will serve as an illustration of the policy of the courts in these matters. The medical law of that State exempted from its provisions all those who had practiced in the State ten years "next preceding" the passage of the Act. The words in quotation marks made the law unconstitutional. The court, in order to save the statute, cut out the objectionable words (*Ex Parte Spinney*, 10 *Nev.* 327). Our Supreme Court recognized the same canon of construction when it declared, in *Ex Parte Frazer*, that certain provisions of the Act of 1878 might be assumed to be unconstitutional without being so decided. The court would, if necessary, have cut out those provisions and preserved the framework of the Act.

In 1901 the Legislature of this State, expressing the wishes of the people, thought it necessary to provide a better system than that under which they had been living for twenty-three years. Did they provide the best possible system? Has the Act of 1901 no defects, no imperfections? Is it perfectly fair and just as far as the medical profession is concerned, does it not ruin the hopes of young students for an easy road to a license, and curtail the profits of those who thought the people of California would always be satisfied with the medical legislation of 1878? Does it not impose hardship upon the legal practitioners of other States, who, ignorant of the evolution of medical legislation, and of the legal principles underlying the same, believe their diplomas, or licenses, carried with them a vested right to practice anywhere and everywhere, and therefore neglected to keep pace with the progress of medical science? Is the Act of 1901 not practically, though not legally, retroactive as to this large class of practitioners?

All these objections and others which, time and again, have been urged against every sort of medical statute are utterly irrelevant, because the question of the regulation of the practice of medicine, as the Supreme Court of Nevada said in the Spinney case, is not one of reason, but one of policy. "In order to decide whether the rule is arbitrary or not, it must first be decided whether it subserves a good policy or not. But the question of policy is one for the Legislature, not for the courts."

The question is not whether the particular legislation satisfies every element of the medical profession. It is not the will of the physician, but the will of the people which is to be regarded. Is the object of the Act a good one, has its object been attained, are the questions to be determined. The object of the Act of 1901 is obvious enough. Whether its object will be attained, no one can say as yet, because the Act is just beginning to be enforced. Time and experience alone will answer that question. They will also bring to light such defects as may exist in the Act.

The difficulty of providing a perfect system of medical regulation is well expressed by the highest court of Wisconsin in the recent case of *State vs. Currens* (111 *Wis.* 431), in which the plaintiff had attacked the constitutionality of the State medical law which exempted students of the State University from the necessity of taking the board examination, plaintiff having a diploma of equal standing, but from another State:

It is not sufficient argument against this or any other classification that it either may or does exclude individuals as well or better qualified than some which it includes; that notoriously some medical colleges outside of Wisconsin furnish as good education as any within it. * * * No classification is perfect. No general line can be drawn that will not present glaring cases of inequality or inconsistency.

STATE HOSPITAL CARE AND TREATMENT OF THE ACUTE AND CONVALESCING INSANE.*

By ALDEN M. GARDNER, M. D.

ONE of the early things I learned after commencing State hospital work was that the public owned and supported the State hospitals and knew but precious little about them and their management. Probably a very small minority of the citizens of this State realizes that at this moment the State of California is maintaining five State hospitals of this character, and that over five thousand persons are being treated and maintained in the same; but such, nevertheless, are the facts. Fully realizing that you gentlemen are busy men, that your lives are filled with the toil and worry incident to your chosen departments of medicine and surgery, I had thought that it would not prove uninteresting if I placed before you for discussion some few facts relative to State hospital management with which, at the present, you are possibly unfamiliar. I think that the different members of this Society will concede the fact that every insane person is physically ill, as well as mentally disordered, and that the same person, when convalescent, needs that watchful care and treatment which is and ought to be accorded to all sick individuals who are slowly struggling onward to final recovery.

STOCKTON STATE HOSPITAL (Male Dept.)

This fact being conceded, we will suppose that Dr. A. of this Society is called to see a patient with all the symptoms of either acute mania or melancholia, and after having made his diagnosis and given directions as to nursing and treatment, he is confronted by the statement that as far as provisions are concerned with which to nourish and sustain his patient, only a fraction over three and one-half cents will be allowed for any one meal. Do you think he would consider the outlook encouraging for a speedy, or even a protracted, recovery? I think not; and yet during the two years ending June 30, 1898, and the two years ending June 30, 1900, such was the amount allowed per meal in the Napa State Hospital. During these same years a fraction over three cents was allowed in the Stockton State Hospital; two and eight-tenths cents were allowed at the Agnews State Hospital; three and four-tenths cents were allowed at the Mendocino State Hospital, and three and two-tenths cents were allowed at the Southern California State Hospital; and it should be remembered in connection with this that these amounts supposedly represent the prices for each meal for both attendants, employees and physicians. It goes without saying that the nurses, employees and physicians have not in the past, and will not in the future, be provisioned for any such sum per meal. All that may have been spent over and above the sums specified in maintaining the officers and employees must necessarily be deducted from the amount allowed per meal for each patient; hence these amounts are rather above the actual sums used per meal per patient during these years.

Permit me to repeat: During the four years ending June 30, 1900, the following amounts were allowed per meal per patient at the different State hospitals: Napa practically .035, Stockton .03, Agnews .028, Mendocino .034, Southern California .032. I am of the opinion that if you were confronted with this condition of things in your private practice you would feel yourselves sadly handicapped in your efforts to pilot your patient

STOCKTON STATE HOSPITAL (Female Dept.)

*Read before the Medical Society of the State of California, at the annual meeting, held in San Francisco, April 14 to 17, 1902.

onward to recovery. After all, to fully realize just what this means one needs to be compelled to place some member of his family in a State hospital subject to these conditions. If any member of this Society was compelled to do this in the near future, I feel assured that he would do so with many misgivings as to the final results. It can hardly be said that the humane side of the question is greatly considered in the granting of such allowances, and it seems to me that the only excuse that can be offered for such a condition of affairs is that it is economy. But is it economy?

SOUTHERN CALIFORNIA STATE HOSPITAL.

It has been estimated that the average duration of a chronic insane person's life is about twelve years, and that to treat and care for him during that period, taking into consideration also a reasonable sum that he should have earned had he been a producer instead of a consumer, would amount to six thousand dollars. Would it not be better economy, as far as the taxpayers of the State are concerned—I do not mean as far as the politicians are concerned—to spend a few more cents per meal for each patient, during that critical period of his illness, when, as a rule, permanent recoveries only occur, rather than spend six thousand dollars for his maintenance as a chronic insane person during life?

It is conceded by those who have had a large experience in the care and treatment of the insane, that the period of convalescence is a most critical time, so far as permanent recovery is concerned. When a person suffering with acute insanity, of whatever form, commences to convalesce, realizing, in a dim way, where he is and why he has been placed in a hospital, with hallucinations and delusions still present, but less pronounced, you may rest assured that to crowd him among a mass of the chronic insane is not, in my opinion, conducive to permanent recovery. As well might we place the convalescing typhoid patient over an open cesspool, or perform a major surgical operation in a ward containing cases of hospital gangrene. The physician or surgeon indulging in such medical and surgical vagaries as those mentioned would be considered a fool, if not a knave, not only by the profession, but also by the laity. Still, for the want of a suitable number of attendants, the convalescing insane in every State hospital in California are constantly being forced to mingle with the chronic insane, when they should be otherwise employed. I have often strained a point at this period and detailed nurses, leaving other important duties unattended, to take such patients out for a walk over the hills, among the wild flowers, and away from the endless grind and monotony of the immediate vicinity of the hospital, and in not a few instances cases have recovered in which the prognosis was anything but reassuring.

Is it economy to deny the hospital management these extra nurses, and thereby deprive them of a most efficient means of preventing the chronic insane to increase and become a burden to the State? Again, if convalescence still continues, there comes a time when properly selected employment constitutes one of our very best means to hasten permanent recovery, but to do this means intelligent attendants to supervise, guide and direct. In many instances hospital superintendents are denied this additional help, and all in the interest of this so-called economy, an economy that the taxpayers know but little about and care less, but which is dear to the heart of the politician who has a record to make and who cares little how he makes it, providing in so doing he advances his own personal interests. Again, I ask, is this economy? It certainly is lacking in the principle of humanity.

As an additional reason why such help should be employed, and which has a bearing upon the economy side of the question, I will state that during the year 1898 there were on an average

MENDOCINO STATE HOSPITAL.

four hundred insane persons, both acute and chronic, largely chronic, employed at the Napa

State Hospital. Granting that they earned each twenty-five cents per day, and in many instances they earned more, their labor represented a saving to the State of over thirty-six thousand dollars. Again, is it economy to deny the hospital management any assistance which ultimately produces such results in dollars and cents, and also in the recovery of patients? What, you might reasonably ask, did these patients receive for this labor? I answer, a little black navy tobacco, when they desired it, and occasionally some article of wearing apparel, and frequently meat once a day, when it should have been served twice. And all this in the interest of *political* economy. Any and all money that is unnecessarily diverted from the actual support of the institution and its inmates works a hardship upon the management of the hospitals, as well as the patients.

During the earlier years of my superintendency of the Napa State Hospital, the yearly expense of

NAPA STATE HOSPITAL.

our boards of managers rarely exceeded six hundred and eighty-four dollars. During the year ending June 30, 1900, the following amounts were paid the different boards of managers: Napa, $1,790.65; Stockton, $1,508.90; Agnews, $1,540.80; Mendocino, $2,507.40; Southern California, $2,507.70. Why this increased expenditure for board service? Has the service been superior to that of earlier boards? Have the institutions reached a higher plane of efficiency under the new order of things? To these questions only one answer can be given, no. Then why should this excess of money have been diverted from the support of the insane to the pockets of the individual members of the different boards? They will probably reply, because the law gave them the opportunity of so doing. While this answer may be true, the fact remains that so far as this money is diverted from the actual support of the insane, in so far the treatment of the acute and convalescing insane is deficient.

I was somewhat amused, but more disgusted, upon hearing read the by-laws, rules and regulations for the government of the board of managers of the Napa State Hospital. Five committees were found for five different purposes; each purpose required a visit to the hospital, but it was made imperative that each committee should visit the hospital on a day other than the days of regular board meetings. The blind might be able to see through these salutary and beneficent by-laws, rules and regulations, which were supposed to be in the interest of the unfortunate insane, and incidentally in the interest of economy. In the United States wherever State hospitals or asylums are located, frequently those having them in charge are compelled to place before the public the baneful influence of introducing politics into the management of such institutions. Notwithstanding that the law specifically states that any employee of a State hospital in this State found engaged in doing political work, either directly or indirectly, shall be summarily dismissed from the service, still, perhaps, there has never been a time in the history of State hospitals when there has been such a persistent effort to drag such institutions into politics in the face of the law and common decency. The baneful influence upon State hospital management of such a course of action cannot be expressed in words. No matter how high a grade may have been attained in the upbuilding of a great charity, such as our State hospitals represent, when politics is introduced through the front door, a high grade of efficiency passes out of the back, to remain a stranger until a better condition of things is inaugurated.

Nothing so greatly ruins the discipline of the employees of a State hospital as placing individuals in positions whose only claim to notice and employment is that they have rendered some questionable service to a politician who has refrained from performing the service for himself, owing to the contemptible position in which it would place him before the public. Imagine the acute and convalescing insane in the hands of the ward heeler who imagines that the power which placed him in the position is capable of keeping him there, whether he does his duty or not, and you may readily imagine whether the management can enforce that attention to duty which insures the best attention to the inmates of a hospital. A case in point: An old soldier who bears the scars of an honorable service in the United States army had been employed at the Napa State Hospital for fifteen years as outside night watch. To go around the building one has to walk nearly one mile. It takes weeks to learn what the duties of such a position are. Prior to this time only the old employees were advanced to such positions, after having earned the promotion by loyal and efficient service. However, a board of managers appointed to do politics discharged this well-tried servant of the State and placed in the position a man who had never worked a day about

that hospital, or any other, and who knew no more about the position than an Australian aborigine knows about Sanskrit. During the last few months many other changes have been made at this hospital; old, loyal and well-tried employees being discharged and their places filled with political nondescripts, in the hope that they may be of service to whom—the inmates of the hospital? Not at all; to the politician when he comes before the people for political preferment at the next election. Let us suppose, for instance, that at Agnews State Hospital merit and merit alone retains the employees in their positions, from the highest to the lowest. Let us further suppose that the Napa State Hospital political service and not merit is the only qualification needed to secure positions. If any member of this Society was compelled to send a wife, daughter or son to one or the other of these, to which would you send them? This same question was asked of a Legislative committee once while they were visiting the hospital at Napa and they all, with one accord, answered Agnews.

While it would seem that the average politician neither respects God, man nor the devil in his efforts for political preferment and success, still when these questions are brought home to him in a personal way, he agrees with the sentiments expressed in this paper, that merit in the securing, holding and advancement of positions should be the paramount qualification required, and that a liberal, broad policy in appropriations for support and help will insure the best treatment and care for the acute and convalescing insane, and the best custodial care for the chronic insane.

In closing it suffices to say that no staff of physicians in our State hospitals, no matter how earnest and faithful they may be, can produce the highest and best results in the care and treatment of acute and convalescing insane under the present existing circumstances of political interference and false economy.

DISCUSSION.

Dr. E. W. King, Talmage—I have had considerable experience on these lines, and on this question there are one or two things that I would like to say a word about. First, as to the diet in the State Hospitals in California. The cost of diet is about 10 to 12 cents per day, but that represents the raw material, and only a portion of that. Nearly all the vegetables are raised at the hospitals, and are not counted in as a part of the cost; also largely the milk supply. About two years ago the State Board of Lunacy adopted a diet, based largely upon the diet of the U. S. Army. The amount of food furnished to the hospitals I think is sufficient, but the cost may look small. At the Mendocino State Hospital, you can find no complaint of the food furnished to the patients and employes. The question of economy comes up, and I want to say that the State of California is spending large amounts of money for this class of unfortunates. I think $1.00 out of every $12.00 collected by the State of California goes to the support of the insane of this State.

It is true, as Dr. Gardner stated, that we have not a sufficient number of attendants. Better work could be done if we had more. This, to some extent, has been corrected in the last twelve months, and is being corrected as rapidly as the money appropriated by the Legislature can be used. Of the amount of money received each year for the hospitals, only so much can be used each month. In regard to the statement that the patients in the State Hospitals were not sufficiently fed, I do not know of a single instance where special diet has been prescribed that it has not been filled. I make this remark to correct what might have made a wrong impression.

Dr. H. N. Rucker, of Merced—I am sorry my friend Dr. Robertson is not here to discuss a question of this kind. To be plain in the matter, I think the institutions in the State are at the mercy of bad politics, and whenever that is the case, you can't expect good results. You may talk about the great percentage of insane people we have in this State, and there is a reason for it. Wherever you go, and whenever you find that the hospitals are not conducted properly, you do not have so many recoveries; and it is just on that line that Dr. Gardner touched. It is the question of curing a sick man when you are not giving him the proper kind of food. I agree with Dr. King, and it was so when I had to do with an asylum. The food was good, but the trouble was they did not have the variety which these people ought to have had. When they enter they are just like sick people with any other disease. They have loss of appetite; and bread and butter, beans, potatoes, mush and molasses is not the proper diet.

Dr. Brainerd, of Los Angeles—This is a matter in which we ought to take more interest. More than $750,000 a year is expended, and there are over 5,000 patients in the State Hospitals. The conditions are not satisfactory, as one would expect, through politics. The superintendent has no authority; the character of food and raiment for the patients are such that they cannot live in comfort, and I think the Society ought to know where the fault lies. It is a blot on the good name of California, and we should know if the employes are there on account of their fitness or on account of their political pull.

Dr. King—I made the statement that there was more or less politics in the State institutions, but I do not think that the State of California is not paying a sufficient amount of money to maintain the 5,000 insane people in this State. The diet list at the Napa State Hospital is up to the standard of the United States Army, and the amount of food allowed in twenty-four hours is quite sufficient.

Dr. Gardner—The dietary was gotten up in my office, and at the meeting that followed of the different members of the Board of Management and the Superintendent, some changes were made, and the diet list compared quite favorably with that of the Army and Navy. In discussing diet, one member said he could never find a scientific stomach for a scientific food. They did not allow us the amount of food they said should be used in the hospital. They fixed up the diet list and adopted it, but when it came to furnishing the money, they did not do it. I contend that no sick person, and in fact no well person, can be kept on the measly sum of three cents a day. The per capita of milk at the Napa State Hospital is one-quarter of a gill a day. I bring this before the Society in order that it may be understood how these things are being done.

There is much alarm on the west coast of Mexico over the reported appearance of bubonic plague at Mazatlan.

IS ANOTHER CHAPTER IN PUBLIC PHTHISIOPHOBIA ABOUT TO BE WRITTEN?

By F. M. POTTENGER, PH. M., M. D.

President of the Southern California Anti-Tuberculosis League, Corresponding Member of the Central International Bureau for the Prevention of Consumption, Member of the American Climatological Association, etc., Los Angeles, Cal.

ACCORDING to press reports, the special committee appointed by the State Senate at the last session of the Legislature to inquire into the advisability of establishing a State hospital for the care of tubercular patients, held its meeting recently in this city and decided upon a course which illustrates the fact that phthisiophobia is spreading, and emphasizes the necessity of the medical profession taking an active part in setting the people aright on this important question. That there is danger from tuberculosis no one will deny; but that the general public is becoming needlessly alarmed, and is magnifying the danger of infection, is likewise undeniable. The trouble with the people is that they are going at the matter blindly. They are not stopping to find where the danger lies. It is the privilege and duty of the medical profession to instruct the people that they may know how to protect themselves, and also that they may not work unnecessary hardships upon those afflicted with tuberculosis.

I wish to discuss this question, both from a scientific and humanitarian standpoint. From the former, such action as is contemplated by the Senate committee is inadequate and unnecessary; from the latter it is unjust and cruel.

It is proposed, so the press report goes, to recommend legislation restricting immigration into the State of tubercular patients and providing for a board of examiners to pass upon all "patients" coming into the State and to prevent "those undesirable" from entering.

Here arises a constitutional question with which we will not deal, except incidentally; but from a medical standpoint quarantine is certainly impractical. I suppose by "those undesirable" is meant those who are to become a burden upon the State; but unless the law will allow a discrimination to be made between the man with the money and the man without, then such a measure can not stand.

In dealing with such diseases as scarlet fever, diphtheria and smallpox, the measures applied to one are applied to all; and would not the same be true in tuberculosis? Then the question arises, is it desirable to keep all tubercular patients out of our State? In order for such a position to be maintained it must be shown that contact with those afflicted with tuberculosis is dangerous *per se* and that personal contact with them is prone to spread the disease. Such a position is not based on fact and can not be sustained by experience. Tuberculosis is not a contagious disease in the sense in which we use that term, but a communicable disease. You may come in contact with a patient who is expectorating bacilli by the million daily, yet, if he is careful to destroy the sputum, there is no danger. The danger from this disease comes from ignorance and carelessness; it can be avoided by education and care. No method of dealing with the tubercular patients can be devised without keeping in mind the scientific facts which have been ascertained regarding the cause of the disease. Knowing that the bacillus is the direct cause of the disease, and that those things which lower vitality are the indirect cause, all measures, whether legislative or philanthropic, which have for their purpose the prevention of the spread of tuberculosis must be directed to the destruction of tuberculous sputum and other discharges if they contain the bacillus, and to the elevation of the plane of living of the people.

To those who are in the habit of thinking of tuberculosis as a highly infectious disease, and to those who have the power to legislate on this subject, the experience of close personal contact with these patients, as it comes in sanatoria, should teach an important lesson. During the past twenty years there have been treated in the Brompton Hospital for Diseases of the Chest, in London, more than fifteen thousand cases of tuberculosis; and yet neither a nurse nor attendant has been infected. The same record has been made at Falkenstein, Germany; the Adirondack Cottage Sanitarium, and the Winyah, at Asheville. If this disease were so infectious as to require quarantine laws against those of our fellow citizens who have been so unfortunate as to become afflicted with it, then we would expect those who come in daily contact with them in these institutions to contract the disease. That they do not, shows us that tuberculosis should not be classed with the contagious diseases, but rather as a communicable disease, whose spread may be prevented by such care as is taken in these sanatoria. Professor Brouardel, who is at the head of the anti-tuberculosis crusade in France, in his address before the London Tuberculosis Con-

gress, in discussing this question, said: "Thus gradually in all countries the public are beginning to realize that personal care and cleanliness are necessary to obviate contagion, and are also realizing that other idea—to my mind equally important—that a consumptive patient is only dangerous if the necessary precautions are not taken around him, and if he himself does not take them to protect his relatives, friends and fellow-workmen from contagion."

Granting that a quarantine law would be constitutional, and that it were desirable to keep all tubercular patients out of our State, would it accomplish the purpose for which it is intended? This purpose is to check the spread of tuberculosis in the State, but such a law would be futile. Measures which go nearer to the root of the tuberculosis question are necessary. This disease develops within the borders of our own State. There is no place nor no climate which is immune. It develops in the mountains of Switzerland, in our Rocky mountain States and in California. According to the census of 1900, there were more deaths from tuberculosis per thousand of population reported from San Francisco than any other large city in the United States, and surely no one will attribute this to the importation of cases. Then, with tuberculosis already in our own State, and with the evidence that it can be prevented by proper sanitary regulations, would it not be more practical for our legislators to enact measures providing for the destruction of sputum, the prevention of overcrowding, for the care of the afflicted?

If a quarantine law were passed, or if any unwise measure were enacted, there is great danger that it would increase the unreasonable fear which already occupies the minds of the public; and, as a result, would work undue and unnecessary hardships upon those afflicted with the disease. They are not criminals. It is no fault of theirs that they are afflicted, but it is the fault of society collectively for not teaching the manner of preventing tuberculosis and not enacting and enforcing laws which will do so. These poor patients have enough to bear without being treated as lepers, and the society which would add an unnecessary stigma to them is culpable and inhumane. What one of us would want to be treated as a social outcast? We may be well today, but what have we to insure us that we have not latent tuberculosis processes within our lungs that may be started into activity in the future? What one of us has not a friend or dear one who is afflicted with this disease? It must be remembered that in dealing with tuberculosis we are dealing with a preventable disease, and yet one that causes the death of about one-seventh of the world's population and one which afflicts about one-half of them sometime during their lifetime. It must also be borne in mind that it is a curable disease.

The great danger of spreading the disease comes from patients being in unsanitary and unhygienic surroundings, where the sunlight does not enter and where ventilation is impossible. Scientific experiments show that the direct rays of the sun will kill the bacilli in from a few minutes to a few hours. In dark, illy-ventilated apartments, however, the bacilli will live for months. It is wonderful to contemplate that while a tubercular patient will cast off several millions of bacilli a day, and while the disease usually lasts months, and often years, on an average each case does not infect quite one new one. This fact should certainly be enough to quiet the fears of those who seem to be panic-stricken, thinking this disease so highly infectious.

We may learn lessons in dealing with this disease from the experience of other States and other nations. To-day the whole civilized world is directing its attention to the prevention of the spread of tuberculosis. This organized effort is pregnant with hope. In the light of what has been accomplished by isolated efforts here and there, we believe that in the near future we will see the beginning of a universal reduction in the death rate from this malady. The death rate from tuberculosis has been reduced 35 per cent in New York City since 1886. This Biggs attributes largely to the influence of notification. From 1883 to 1894 it was reduced 32 per cent in the city of Berlin, and in the same time nearly 40 per cent in London. These reductions have been made, it might be said, without the co-operation of the people, at least without an intelligent co-operation. From now on the effort will be united under the guidance of the International Central Bureau for the Prevention of Tuberculosis, whose headquarters is in Berlin. This Central Bureau hopes to have members in all civilized countries, and its purpose will be to study the tuberculosis problem and suggest, and try to carry out, the best measures for its prevention.

The measures which recommend themselves as being of value are: First, those which will prevent the healthy from becoming infected, such as laws providing for the construction of sanitary dwellings and the prevention of overcrowding, instruction in the laws of hygiene and sanitation, teaching the people the necessity of fresh air, day and night, and the importance of keeping their bodies strong and healthy; second, those which are directed to the afflicted.

Tuberculosis differs from the ordinary contagious diseases in that it is a chronic disease, lasting usually for months, and often for years. During all this time, if the patient observes ordinary care, the chances are that he will not infect a single person; and where he is kept in a sanatorium or hospital, and surrounded with sanitary

precautions that are there used, he is, as shown by experience, entirely free from the danger of scattering infection. With the other diseases mentioned, no matter how careful, and no matter how sanitary the surroundings, the unprotected are very likely to become infected.

Since it differs from these diseases, it must be dealt with differently. As a disease it spares neither rich nor poor, yet it makes its greatest ravages among the latter. Perhaps 90 per cent of those afflicted are among the poor, those who are overcrowded and underfed. In their unhygienic homes they lie and suffer, infecting their surroundings and endangering their friends. How this can be prevented is the problem. In the first place we must educate. We must inspire every one with the fact that tuberculosis is preventable. We must teach them that if they will put themselves under proper surroundings that more than 50 per cent of them can be cured when they are first taken ill.

Since so large a percentage of them can be cured, it should be the pride as well as duty of the nation, State and municipality to see that they are cured. The large majority of these are too poor to be cured without help. Many of them are the breadwinners, and if they stop to be treated (and in order to be treated the medical advice would have to be furnished gratis), the support of the family would cease, and rather than to have this occur they work on until they become helpless and are relieved by the Grim Reaper.

These poor sufferers must be given medical attention; they must be put in the best circumstances possible for regaining health. To accomplish this the experience of other nations, notably Germany, France and England, teaches us valuable lessons. These nations, along with some others, are caring for their tubercular poor. They are providing sanatoria for the treatment and cure of the incipient cases, and hospitals for those advanced. More than 85 per cent of those who are treated in the sanatoria for a period ranging from three to nine and ten months, are able to return to work, and half of the early cases are cured. Those who are too far advanced are taken from their miserable surroundings and put in clean, comfortable quarters where their sputum and other infectious discharges are destroyed. Their former quarters are disinfected, and thus one more source of infection is destroyed and a human being is made comfortable during his last days. This being a disease of society, and the one afflicted being so for no fault of his own, but because society has failed to protect him from a preventable disease, he has a right to look to society for aid. On the other hand, society has a right to demand of the afflicted that he take those measures which are necessary for the protection of the well.

I would not in the least minimize the danger of infection, nor would I omit any measures which are necessary for the protection of society; but I would not have unnecessary hardships imposed upon those who are afflicted. In order to do justice to all we have a difficult problem before us, but one which is capable of a scientific, just and humane solution.

It is to be regretted that the Senate committee will report adversely on the subject of a State hospital. Our State needs not only one, but several such institutions, and if the matter were put before our legislators in the proper manner, I believe they would see that it is a necessity, not only from a humanitarian standpoint, in the good that would come to the afflicted, but as a measure of self-defense. California has become noted as possessing a favorable climate for tubercular patients, and every year more and more are coming to our State. Many of these regain health and become useful citizens, while many of them die. But all of the afflicted are not coming from outside of our State. This disease is in our midst. We could find enough native cases throughout our State to fill several institutions, and a few well regulated institutions would cure many cases and return them to their homes to provide for their families and to carry back ideas of sanitation. It is a notable fact, observed by all directors of sanatoria, that the inmates of these institutions leave their walls and go forth as missionaries, teaching their former friends how to live. Then it would be a good investment to provide hospitals where the advanced cases could be taken, so as to prevent them from infecting their surroundings. It must be remembered that it requires money to carry out sanitary measures, and, even if the poor wanted to do so, many of them would be unable without help.

One of the greatest recommendations that can be given to sanatoria is the effect they have upon the communities in which they are placed. Professor Ebstein, in his recent book on "Village and State Hygiene," collected statistics from those open health resorts which are visited by tubercular patients and compared them with those places where sanatoria are located, and found that in the former the death rate from tuberculosis is increasing, while in the latter it is decreasing. He says, after this investigation, that it is an open fact that the influence of these institutions is beneficial to the localities in which they are placed.

This is properly a medical question, and its solution must come through the medical fraternity, or by its aid. Would it not be the proper thing to have a State commission of medical men to inquire into the status of the tuberculosis problem in our State and to suggest the measures necessary for its prevention? It is to be hoped that the medical fraternity will become aroused and that it will use its influence in preventing unwise, un-

scientific and inhumane legislation, such as has been suggested.

A thorough ventilation of this question through the medical press and medical societies of the State would doubtless result in good to the cause.

After consultation with several members, the writer offered the following resolutions to the Los Angeles County Medical Society at its regular meeting on January 2, 1903, which were adopted without a dissenting vote:

WHEREAS, There is a growing tendency on the part of both private individuals and public officials to regard and classify tuberculosis as a highly contagious disease; and, whereas, such action has a tendency to cause tuberculosis to be associated with such diseases as smallpox, scarlet fever and diphtheria, which are conveyed by simple contact with an infected individual; be it

Resolved, That the Los Angeles County Medical Society deeply deplores such action, which is not based on scientific experiment or clinical experience, and believes it to be unwise and unscientific; and be it further

Resolved, That, while the Los Angeles County Medical Society recognizes tuberculosis to be a communicable disease, and while it would urge every necessary precaution to be put forth to stay its progress, yet it is opposed to all unwise and unnecessary acts which have a tendency to create unnecessary fear on the part of the people and to work undue hardships upon the consumptive individual and his family.

OOPHORECTOMY—ITS EFFECT ON THE MIND AND NERVOUS SYSTEM.*

By WALTER LINDLEY, M. D.

Professor of Gynecology in the Medical College of the University of Southern California. Ex-President of the California State Medical Society.

THE object of this brief paper is simply to call out information on three points.

First, what effect has oophorectomy on epilepsy? Second, what effect has oophorectomy on insanity? Third, what effect has oophorectomy on a patient who has no apparent disease of the mind or nervous system?

In regard to its effect on epilepsy, the intimate relations of the uterus and ovaries, especially at the menstrual period, with the brain and nervous system, has led many observers to look to these organs with the hope that surgical interference would give relief.

That the absence of menstruation might be beneficial to the epileptic has been inferred from the fact that pregnancy has been found to have at least an ameliorating effect on the epileptic. Independent investigators have demonstrated that out of forty-six observed cases of epilepsy that became pregnant, twenty-nine cases were decidedly improved, nine cases were stationary and eight cases were aggravated.

In regard to oophorectomy for epilepsy, I have had but three cases, as follows:

First, M. J., aged 20. She was originally of fair intelligence and began having epileptic seizures when 15. These had become more and more frequent, and had injured her mind, until it became necessary to send her to a hospital for the insane. She was brought from the insane hospital in order that I might operate on her. The case offered no tangible hope, but as a *dernier resort* I agreed to operate, knowing that she would otherwise become a confirmed imbecile. Consequently, five years ago, I removed her ovaries. She made a quick recovery from the operation, but continued having convulsions just the same, and about six months later died in the insane asylum.

The second case was a woman of 35, whose attacks had begun about twelve years previous. She had an hypertrophied, lacerated retroverted uterus, and I decided to remove the uterus and the ovaries, which I did vaginally one year ago. This patient made a quick recovery and was absolutely free from any symptoms of epilepsy for a few weeks after the operation; since then she has completely relapsed to her former condition.

The third case was one that seemed to me particularly encouraging. This patient, M. J., was 19 years of age. She began menstruating when 13 years of age, and the very first day of her menstrual period she had her first convulsion. From that time on her epileptic seizures and her menstruation were almost synchronous. At times, when she had missed her menstrual period, she had also missed her convulsion; consequently, after getting the approval of Dr. H. G. Brainerd, I did an oophorectomy at the California Hospital, Los Angeles, October 16, 1900. She made a fine recovery and went home in three weeks. It is now a year and a half since the operation. For the first two months she had no sign of an attack, and during that time her mind, which was previous to the operation becoming weakened, gained in strength, and all felt encouraged; but after two months she began losing ground and has relapsed into her former condition.

My experience has certainly been very discouraging, but we at least have the satisfaction of knowing that these afflicted patients will never reproduce themselves.

Some authors believe that it would be still better to remove the uterus and leave the ovaries, thus superinducing the menopause and at the same time giving the patient the alleged advantage of the remaining ovarian tissue.

Dr. J. H. McBride, of Los Angeles and Pasadena, says that in his experience the operation has done no permanent good in epilepsy, while Dr. H. G. Brainerd, of Los Angeles, says: "In regard to the effects of oophorectomy on epilepsy I can recall only four or five cases in which the operation has been done for relief from that disease. In only one of these, other than the case which you operated on at my request, the seizures were uniformly recurring at the menstrual period. The operation produced the menopause, with a

*Read before the Medical Society of the State of California at the annual meeting, held in San Francisco, April 14 to 17, 1902.

cessation of the epileptic seizure. In the other cases there was a temporary suspension of the seizures, but they ultimately returned as frequently and as severe as before the operation."

In regard to the effects of oophorectomy on insanity, my personal experience has been quite limited, but I had one case a few months ago who was a married woman, aged 30, who had borne three children. The history was that every time she became pregnant she went insane, and that she was in the hospital for the insane during six months of her last pregnancy. Also that when she menstruated she showed considerable mental excitement; in fact, the woman was to some extent weak minded most of the time, but at other times than during her pregnancy she was able to do her housework. I performed this operation at the California Hospital, Los Angeles, January 4, 1902. The woman made a good recovery, and left the hospital for her home January 31, 1902. She remained very well for about two weeks, and then began to grow worse, and it was found necessary to commit her to the hospital for the insane on February 27th. This is the only case where I have operated for insanity, and certainly my experience in this is not encouraging.

Dr. H. G. Brainerd says: "As to the effect of oophorectomy on insanity. Two cases which began as attacks of melancholia, with suicidal propensities recurring with each menstrual period for a number of months, and later becoming continuous, were both cured by oophorectomy. In quite a number of other cases where the operation was done in the hope of relieving insanity, the patients have been either not benefited or really made worse by the operation.

"My opinion is that an insane or epileptic woman should have the same judicious treatment accorded her for ovarian trouble, which might or might not include the removal of the diseased organs, as the woman who is not insane. But only a very small proportion of either insane or epileptic women will be cured by oophorectomy. And I have seen not a few nervous wrecks whose chief source of trouble was, in my opinion, due to the removal of their ovaries."

These opinions of Dr. Brainerd and Dr. McBride, who are our highest authorities in Southern California as neurologists, coincide with the experience of Dr. F. T. Bicknell, the gynecologist. He says that in a number of cases ot epilepsy and insanity on whom oophorectomy has been performed he has never seen any benefits result.

In regard to the effects of the operation on women who are previously normal in their mental and nervous condition, my own experience has been that there were no bad results. Out of about twenty cases that I have personally observed, there have only been three in whom nervous symptoms have possibly been attributed to oophorectomy, and in these there was room for doubt as to whether the operation was the cause of the trouble.

Dr. Bicknell says that where nervousness can be traced to tender, painful and neuralgic ovaries, oophorectomy and consequent menopause brings on prematurely that good nature and cheerfulness and content that we generally see in nervous women following the natural menopause.

Dr. J. Montgomery Baldy in *Gould's Year Book of Surgery* for 1901, says: "Possibly we are too much alarmed about the dangers and inconveniences of an artificial menopause. Double ovariotomy at least is not followed by very evident physiologic troubles."

The general tendency now seems to be to attribute great virtues to ovarian extract.

The International Medical Annual for 1902 quotes Krusen, of Philadelphia, who has devoted three years to the study of the therapeutic properties of this substance, and has arrived at the conclusion that the principal function of the ovary is ovulation, and if any peculiar product is coincidently manufactured, the isolation of this product has not yet been accomplished. The same work also quotes several others who speak favorably. Dr. Regis prescribed it in cases of mania following the removal of both ovaries and tubes; the result was most successful, although many injections were necessary. Dr. Leopold Landau gives his support to this mode of treatment.

The same work quotes Julien, who finds the drug of great value in post-operative menopausal symptoms, as in amenorrhoea, dysmenorrhoea, anæmia, chlorosis and osteomalacia. He gives full notes of forty-one cases in support of his assertions.

The method of administration now generally adopted is to give five-grain tablets by the mouth three times daily.

Gould & Pyle's *Cyclopedia of Medicine and Surgery* says: "The substance of the ovaries has been administered with some benefit in the nervous manifestations and pathologic conditions which occur when the ovarian functions are partially or wholly arrested, as in cirrhosis or malignant disease thereof, or after the operation of ovariotomy. It is said to be of use in cases of depression or other mental disturbance coincident with the climacteric."

Without having taken any accurate notes on this subject, my impressions have been that the woman upon whom hysterectomy has been performed, and where the ovaries have been left, makes a quicker and more satisfactory recovery than the patient who has had oophorectomy performed. I could point to a considerable number of cases in Los Angeles of women who have great responsibilities, and hold, you might say, eminent positions, upon whom hysterectomy has been performed, and yet who are having the

brightest and most successful years of their lives.

And to sum up the whole matter, with this very indefinite data, I would say that in selected cases of epilepsy and insanity where there is real disease of the ovaries, producing artificial menopause is advisable and justifiable, and that in any woman who has diseased ovaries the fear of producing nervous and mental diseases should not in any way interfere with the decision to promptly operate; but the preferable operation is to remove the uterus and leave the ovaries. This may logically lead to producing menopause by removing a section of both the Fallopian tubes, but I am not sufficiently informed of that operation to justify me in venturing an opinion.

DISCUSSION.

Dr. C. Von Hoffmann, of San Francisco—The influence must be different when the ovaries are removed in a healthy and in a diseased condition. In epilepsy I have had no experience; but in the removal of ovaries in epilepsy all come to the conclusion that the operation should not be done, as there are no benefits. If the epilepsy is caused by the diseased ovary, then it may be possible that it will be cured by oophorectomy, the same as any other disease which can be shown to cause epilepsy. After removal, the patient will be better. There may be cases in which epilepsy can be caused by malformation of the genital organs. In such cases I thought it might be possible to bring on normal development. I once had occasion to try that, but was not successful. An epileptic young woman, who had never menstrated, came to the dispensary. Uterus undeveloped, ovaries small, she was sent out to the County Hospital, where another patient suffering from the after-effects of pelvic peritonitis was waiting to be operated upon. I meant to transplant her ovaries into the epileptic patient. Dr. McCone, who had made some experiments in transplanting ovaries of animals, operated on the epileptic patient. I found, unfortunately, pus tubes in my patient and did not want to risk transplanting these ovaries into a healthy patient. Therefore Dr. McCone removed both ovaries of his, the epileptic patient, and closed the incision. A part of one of these healthy ovaries we transplanted to the other patient into the fundus of the uterus. Both patients recovered. In cases where we can show that the epilepsy is caused by lack of development of the genital organs, by transplanting healthy organs, the epilepsy might get better. Only in such cases in which the healthy ovary is removed can one observe the effect on the mental condition. If diseased, the patient has been suffering before the operation so much that the effect of the removal of the ovary or of the improvement to the general health of the patient is difficult of solution; but the effect of the operation has not been reported. In the *American Journal of Obstetrics* an article was published which advocated the operation on insane women, and which claimed that after the removal of the ovaries the recovery from insanity was 49 per cent. Duration of insanity after the operation lasted eighteen months. I have never operated in the asylum, and have had no experience.

The extirpation of healthy ovaries has a peculiar effect on women. To remove them from a young girl before menstruation or before they had frequent intercourse, causes them to become stout, and they do not possess the peculiar roundness we admire in women. If they are removed later in women who have had children, the effect is different. In the first year they show all the signs of change of life. The effect on the sexual life is different in women who had feeling and those who had no feeling. Women who suffered from pain during sexual intercourse have the sexual orgasm, and do not suffer. The effect on the general constitution is that they become stout. On the mind, if the operation has been a regular castration, the patient does not show any change of feeling of mind or intellect. When the ovaries are diseased we have to consider the conditions of these patients before the operation. We must remember that these operations are done after long suffering by the patient, and these patients would rather submit to the operation than to have their lives full of suffering and not worth the living.

Dr. George L. Cole, of Los Angeles—Something like five years ago a woman, who had borne more than one child, was sent to the asylum. She was there about one year and returned, recovered. Something like a year after she returned from the asylum she had a healthy child, but one year later developed evidence of insanity. She became emaciated, and complained of severe pain during menstruation, and her relatives told me she was in practically the same condition as before she went to the asylum. She said that unless something was done for her she would return to the asylum. One symptom she complained of was severe pain in the head, and a sensation of the head being separated from the body and floating around the room. She was willing for anything, and I called a consultation and removed the ovaries, which were not wholly diseased—some cysts. The pain left her; and now, at the end of nine months, she is a healthy, happy woman.

Dr. W. W. Kerr, of San Francisco—The general practitioner, sometimes seeing the results of surgery in gynecology, has some experience in the results of operations for the removal of ovaries for relief of epilepsy. I have had two patients whose ovaries were removed for epilepsy, one about twelve years ago and the other sixteen years ago. The operation was undertaken with the idea that, since this nervous trouble developed as soon as menstruation, if the menopause was hastened the epilepsy might cease. In the first case, the epilepsy ceased, but after eight months returned, the patient suffering as much as she did before. In the other case, the convulsions were absent for three months. The temporary improvement made us hope for better results, but in all major operations the improvement is only temporary. When a considerable piece of the skull is removed in epilepsy, the convulsions cease for some time, and a severe mental shock will arrest the convulsions. Another epileptic patient fell down a well forty feet deep, and the result was that she had no convulsions for a year. I think the improvement in oophorectomy is entirely on the same basis. The shock affects the functions of the nervous system for a certain length of time.

Dr. W. F. B. Wakefield, of Oakland, has returned from Italy, where he attended the fourth International Congress of Gynecology and Obstetrics at Rome.

"The current number of the CALIFORNIA STATE JOURNAL OF MEDICINE, a monthly published by the Medical Society of California, is replete with papers vital to the medical profession, written by men foremost in their calling. It should be found on the table of every student of medicine. The number for December is one of the best published."—San Francisco *Bulletin*.

THE PROPHYLAXIS OF VENEREAL DISEASE. *

By JOHN C. SPENCER, A. B., M. D.

Chief of Clinic for Genito-Urinary Diseases, Out-patients' Department of the Medical Department of the University of California.

IN no profession or calling may it be more truly said that Altruism finds its highest development than in that of the medical man.

Our constant aim and ambition is to modify and prevent the causes of disease, as well as the disease itself. Thus we are constantly striving to prevent the conditions, in the combatting of which we find our sustenance. Preventive medicine, then, is essentially the watchword of the practice of medicine in the 20th century of human progress.

In justification of the selection of the subject of this paper, with which to occupy your attention for a brief period, it may be permitted to present certain facts and opinions culled from various sources.

In order that, in our contemplation of the onward march of the infectious and contagious diseases afflicting humanity, we may not underestimate the importance of the position occupied by venereal disease, I submit the following: Morrow states that one-eighth of all the patients in the New York hospitals suffer from venereal diseases, or their consequences. He estimates that from 60 to 80 per cent of stillbirths are due to syphilis, and regards rickets as almost exclusively due to the same cause. He has seen more than 50 cases of extra-genital syphilis among medical men. Bulkeley of New York is so impressed with the prevalence of syphilis *insontium*, that he seriously recommends its removal from the category of venereal diseases. Neisser places gonorrhea next to measles in the order of prevalence of contagious diseases, and claims, further, that in some European cities three-fourths of the population have had the disease. He holds that gonorrhea is a more potent factor in depopulating countries than syphilis, 30 per cent of sterile marriages being due to gonorrhea. Saenger found one-eighth of his gynecologic cases gonorrheal. Other German authorities assert that 80 per cent of deaths from diseases of the uterus and adnexa are primarily due to gonorrhea. It is estimated further that from 40 to 80 per cent of the cases of metritis, endometritis and parametritis, resulting in sterility, are due to gonorrhea. Busch and Fuerbringer estimate that 90 per cent of the cases of azoospermia are due to gonorrhea. Well do I recall the rude awakening caused at the time by Noeggerath's published statement that three-fourths of all miscarriages, at or before the third month of pregnancy, were due to latent gonorrhea in the male. Neisser reports that there are to-day in Germany 30,000 blind as a result of gonorrheal ophthalmia, and that before the inauguration of the Crede method of treatment, 10 to 20 per cent of the inmates of the blind asylums were there from the same cause. Fournier believes one-seventh of Paris to be syphilitic. By some authorities syphilis is regarded as being twenty times more contagious than tuberculosis, and almost as severe in its ravages. Cunningham, commenting on the health of the British army in India in 1895, states that over 53 per cent had gonorrhea. If we are to judge even approximately of the conditions among our own soldiery, which passed through here *en route* to the Philippines, at least 75 per cent of the first contingent leaving this port were suffering from venereal disease. The above facts prove the conditions to be truly appalling. They give to venereal diseases the hideous distinction of being second on the list of endemic contagious diseases, responsible for a large individual proportion of deaths of the human race, tuberculosis being first.

It is to be hoped that the contemplation of these data will not result in a benumbing of the perceptive faculties and a begetting of indifferentism. It is easy for us to sit passively regarding the inevitable results of what is, doubtless, held by the vast majority of medical men and laymen as a necessary evil.

I do not appear before you as a prophet out of the wilderness preaching a new doctrine, or offering any essentially new ideas or suggestions. It is with the aim of awakening your latent consciousness to the distressing, and regarded from the standpoint of economics, disastrous consequences following in the wake of venereal contagion; and, as far as may be, to cause you to realize how great a power, properly applied, for the amelioration of these conditions lies within you.

The impetus for bringing about this change must spring, logically, from a united medical profession. As familiars with the minutiæ of these diseases, the general public, the law-making and regulative bodies, must depend upon us for information and suggestions as to the details for their curtailment, if not prevention. The proletariat, always apathetic and indifferent to its own welfare, may never be depended upon to do more than follow its instincts and impulses in matters concerning indiscriminate sexual gratification, without heed as to consequences or penalties. The initiative must spring from us.

Assuming, for present purposes, that prostitution, open or secret, is a human necessity, how shall we best proceed in order to minimize and neutralize the evils consequent upon the practice? The cruelties of the English and French rulers of the Middle Ages, who gathered all the prostitutes and either drove them into the mountains to perish by exposure and starvation, or into the sea to drown, may not be practiced to-day, irrespective of their efficacy.

* Read before the Medical Society of the State of California at the annual meeting, held in San Francisco, April 14 to 17, 1902.

A sub-committee, consisting of Drs. Morrow, Fowler and Weiss of New York City, appointed for the purpose of ascertaining the best means for the prophylaxis of venereal diseases, approached the solution of the problem by sending out a series of questions to physicians. To this they received 1,065 responses. Of these, 340 recommended the regulation of prostitution by a system similar to the French, viz, police inspection, regular medical examinations and a strict isolation of the diseased; 203 recommended segregation of prostitutes, after the manner of the Yoshiwara in Yokohama; 152 recommended regulation of those suffering from venereal disease through the medium of the Health Department. To this department physicians are to report the nature and origin of each case.

Let us, for a moment, consider these recommendations a little more closely. First as to the regulation of open prostitution. The system prevalent in France also exists in Belgium, Germany, Austro-Hungary, Russia, Spain and Portugal. It was adopted in England in 1860 and abandoned in 1881; Norway and Italy passed through a similar experience for the same period; Italy re-established the system in 1891. Each of these countries unite in acknowledging serious defects in the system: First, that it gives an unusual power into the hands of the police, who are prone to and do misuse the same; the medical inspection, even under the most favorable circumstances, offers no absolute security; the isolation of those affected is ridiculously inadequate, and, in any event, the system does not include the infected males. Outweighing all of these objections is the one that the entire system places a premium on secret prostitution. The enforced isolation, where the affection is slight, is naturally regarded as exceedingly irksome by this class, with the consequence that escape from the confinement forces these unfortunates into the ranks of secret prostitution. Through this agency the likelihood of the spread of disease is increased many fold.

Next, as to segregation. This places a premium on prostitution itself; affords a well-known locality to which the voluptuary may at all times have ready access. As a matter of fact, prostitution is self-segregating in most communities. In the general localities where prostitutes may be found they are there by a process of natural selection, similar to that which brings the various foreign elements together in our larger cities. Western Anglo-Saxon ideas of the proprieties have not yet reached the degree of tolerance of those of the Far East, which would, even tacitly, sanction or connive at the establishment of a Yoshiwara in our midst. Such a plan breeds a familiarity with the evil in the minds of our youth, crystallizing their attention in that direction. From use of the settlement as a show-plague-spot, after the fashion with the purlieus of our own Chinatown, the next step in the gratification of the morbid curiosity would be to enter the portals.

Surrounding the reporting of cases with secrecy tends to cause the indigent to yield more willingly to hospital confinement and adequate treatment. The most degraded possess an innate repugnance to having their physical ailments of this nature flaunted publicly, and their personality associated with a loathsome disease. Infinite, patient perseverance and tact are to be exerted to bring about the desired condition. The best efforts of the deepest thinkers have been applied, as yet unsuccessfully, to the solution of this problem, hence it may be expected that we shall stumble and fall by the way many times before attaining a Utopia. When we shall have succeeded in having such recognition of our importance accorded, as the establishment of a Department of Public Health at Washington, and have a representative in the Cabinet, we may reach the millennial condition of uniform laws on sanitation and hygiene, which shall apply to our country as a whole. Laxity in one community and stringency in another will simply tend to concentrate profligacy and licentiousness in the former, with a concomitant increase in the amount of venereal disease.

Under the head of regulation, all recent students of the evil, prostitution, are agreed that it may be best restricted by education.

Dyer recommends "that this education begin at home. A spirit of tolerance toward fallen women is to be inculcated, and not one of abhorrence. Our youth, at puberty, and even before, is to be instructed in the physiology of their sexual functions, and the dangers of illicit indulgence of that function pointed out to them. Some practical form of instruction is to be applied to criminals in corrective institutions, and to inmates of orphan asylums. Legislators and health authorities are to have their beneficent attention aroused, and ways pointed out to them for the creation and application of laws for the betterment of our social conditions in this regard. Reform must come from gradual adaptation, and not from any violent measures. Prostitutes are to be offered opportunities of education along lines of interest, and are to have access to unadvertised homes, to which they may resort," *without the feeling that they will be embarrassed with reform-propaganda during their sojourn.*

"Recognize sexual perversion as a disease. Require all cases of venereal disease, in those not well-to-do, to enter a hospital and remain until cured. Make the transmission of venereal disease punishable by fine and imprisonment."

The last proviso is a law in Austro-Hungary. By way of illustration, I recall having seen a case in a Vienna clinic of an unfortunate house-

maid with an initial lesion just within the nostril, inoculated from the finger-nail in picking the nose. The infectious material was gathered on the nail from a sink which she was obliged to clean, the same having been used by a young man in her employer's family, who was in the habit of cleansing his penile chancre in this sink. The man was fined and imprisoned for his selfish carelessness.

The final recommendations in the report above mentioned, were, "that the regulation and prophylaxis of venereal disease should be wholly in the hands of the Board of Health. Physicians should be required by law to report the nature and source of all cases of venereal disease, suppressing the name of the individual. All hospitals and dispensaries are to be required to report their cases of venereal disease. A separate bureau, in the Health Department, is to be established, with its separate inspectors, proficient in their knowledge of venereal disease, with a laboratory fully equipped for making all necessary examinations of secretions. Brothel-keepers are to be required to report all cases of venereal disease occurring in their houses, subject to fine for neglect of the same. Hospital facilities are to be increased. The penalizing of transmission is not regarded as feasible. Minors are the be safeguarded by being sent to a protectory. The age of consent is to be raised, and procuring is to be severely punished."

Under the caption of education the report recommends "the thorough instruction of medical students and young men in the high schools on the dangers arising from licentious living. The idea that sexual intercourse is essential to health, or that gonorrhea is a trivial ailment, is to be vigorously combatted." To quote Gowers: "No man was ever made worse by continence or better by incontinence." The report recommends finally, as the most effective method of preventing the dissemination of venereal disease, "the prompt sterilization of the source, by treatment. Patients are to be instructed as to the dangers from contagion, and midwives as to the dangers from ophthalmia. Each general hospital receiving State or municipal aid should be required to open its doors widely to cases of venereal disease. Advertisements in the press, or near urinals, of 'infallible remedies' and 'sure cures' should be suppressed, and—(*last, but not least*)—druggists should be prohibited from prescribing for venereal diseases."

Bulkeley recommends that the legal control of syphilis should have first place among contagious diseases under the control of the Health Board.

To enlarge a little upon certain of the above regulations. It is a patent fact that hospital accommodations for those afflicted with venereal disease are notoriously inadequate. The majority of such cases requires, as an important part of its rational therapy, rest in bed. The enforced omission of this part of our therapeutic armamentarium I regard as responsible for the unreasonable prolongation of many of my dispensary cases of gonorrhea, and for numerous remissions during the progress of the disease. These unfortunates, with patience exhausted by the prolonged course of the disease, or lulled into a sense of false security by the momentary disappearance of the discharge from the urethra, vanish from the clinic. The latter class is unquestionably an important factor in the propagation of the disease.

Subject to the normal effect exerted by hospital isolation, as well as the opportunity for daily inspection and modification of the therapy, coupled with the easy regulation of the personal hygiene of the individual, I feel certain that, with adequate hospital facilities, the percentage of uncured or latent cases would be reduced to the vanishing point. Hospital confinement cannot be supplanted, even by daily inspection at a clinic for ambulant cases, for reasons above stated.

In Paris but between 1,000 and 2,000 beds are devoted to syphilitic cases. In Berlin still fewer. In New York City, I feel safe in saying, the number would fall short of 500, whereas in San Francisco, certainly not 100 beds are devoted exclusively to the care of venereal diseases. These apply naturally to eleemosynary institutions. In contrast to the figures above presented stand the estimates as to the prevalence of venereal disease in our midst. Facts and statistics are superfluous, however, to cause each of us to realize how ridiculously inadequate are the provisions made for the proper housing alone, of those requiring suitable treatment for venereal disease. This we know from our daily observation. Moral considerations may, and should be, relegated to second place in handling these conditions.

The effective productiveness of the laboring classes suffers serious inroads on time and work from incapacitation due to venereal disease. Approximate estimates of the amount of money lost through detention of the laborer from work for this cause have been made by statisticians. The result in actual money loss exceeds six figures.

In our army during the Hispano-American war, regiment commanders punished the acquisition of venereal infection, because open acknowledgment of the existence of the disease in the individual meant temporary retirement from active duty, and *eo ipso* a reduction in the fighting force. Thus commanding officers, in numerous instances, refused to acknowledge the presence of venereal disease in the ranks, and a premium was placed on the secretiveness of the men.

The potential seriousness of gonorrhea, and the subsequent pathological possibilities, are surely sufficiently well-recognized at the present to prevent the egregious error on the part of the medical man of treating the matter flippantly, or minimizing its dangers to his patient. The individual should have constantly kept before him the seriousness of his infection, that he may not be remiss in any particular as to his part in the conduct of the case. Neither sentiment nor ingenious pleading should be allowed to interfere with the continuance of a rigid sexual quarantine toward the close of an infection. Not until every doubt has been satisfied, and every expedient resorted to, to establish a complete cure should the embargo be raised.

Counter-prescribing on the part of druggists has already been referred to. Doubtless as long as secret nostrums are permitted to be advertised a demand will exist, which renders the druggist the natural and willing channel of supply. That paternal form of government existing on the continent of Europe, which publishes the formulas of all proprietary remedies, after analysis by Government chemists, giving ingredients and actual market-value, might have a deterrent effect in our own country on the too ready sale of nostrums.

Then, I would refer to that spirit of narrow-minded selfishness which, without adequate diagnostic equipment or knowledge, or due regard for the welfare of the unfortunate, presumes to prescribe a syringe and an injection, and turns the patient loose upon himself, so to speak. The possible complications following such injudicious and defective therapy are too numerous to mention.

Laws similar to those regulating the division of labor in all walks of life should apply equally in medicine. The field is so vast, and is growing so rapidly, that no one man may presume to be familiar with more than a moderate portion of the whole. Therefore it is but logical that some should possess more extended knowledge and be better equipped in certain therapeutic resources than others. On this ground, in the matter of venereal diseases. I plead for a more honest introspection on the part of the medical attendant; a more sensitive conscience, which shall not cause him to waver as between his income and his duty. Let him be honest with himself, and if he realize his own shortcomings, let him consider his patient's best interests by placing the latter in the hands of one who is competent to meet all contingencies. This course should contribute greatly in reducing the number of those treated imperfectly or by thumb-rule.

The very list of remedies alone, recommended for the treatment of gonorrhea is *prima facie* evidence of the non-specificity of any one. Hence the necessity for wise judgment, and a most careful empiricism based on extended observation.

In the matter of education not purely medical, beginning with the duties presumably assigned to our Honorable Committee on Education and Medical Legislation. Since we have achieved one great goal, for which we have so long and so patiently striven in this State—the regulation of medical practice—I would urge upon the gentlemen composing the present as well as future committees the great necessity for enlightening our municipal and State lawmakers upon the crying needs of at least increased hospital facilities for the adequate care of those afflicted with venereal disease. Let the Boards of Education themselves, throughout the State, be educated as to the necessity of imparting judicious information to the pupils in the higher grades under their jurisdiction, on sexual physiology and hygiene, and the dangers lying in licentiousness. Let this be done through the medium of a properly qualified medical man. Then following the good work still further, let each of us constitute himself a committee of one to counsel wisely with the fathers of families in these matters, that they in turn may begin with their own sons—and through their wives—with their daughters, at a rational age, making no mawkish mystery of sexual physiology and hygiene, but explaining and guiding. Many parents, through a misconception of the proper attitude toward their children, never allude to that phase in the material development of their offspring. The uniform result is that knowledge of a distorted and vicious nature is absorbed from unworthy and debased sources, which knowledge is applied to perverse practices at the earliest opportunity. The infectious results from licentiousness are scrupulously concealed from the parent; treatment of an imperfect or pernicious character is sought through the misguided suggestions of some friend; resort is had to a proprietary nostrum, or to an advertising harpy, who, making a prey of his unfortunate victim, despoils him, only to turn him adrift after a season, usually much depreciated physically. Patients are continually appearing in dispensary practice that have either used some proprietary nostrum, or have fallen into the hands of a quack, when, after having lost valuable ground, and probably developed complications, in desperation resort to the clinic.

My feeble words cannot paint the picture in lines sufficiently striking to make an adequate impression upon my colleagues. The need is great for improvement in the conditions regulating venereal disease. My conviction is that the most effective methods for combatting the undesirable features, and improving those already working fairly well—for no perfect system, in part or as a whole, may be said to have been evolved as yet—will be found in heightening the

standards of education as to the prophylaxis of venereal disease, and providing ample facilities for throttling the sources of infection through proper treatment. Such methods as these must be carried to their highest perfection in order to be successful, until that millennium shall have arrived when civilized humanity will become artificially immunized against all forms, or at least the venereal form, of microbic infection.

REFERENCES.

Morrow, *Philadelphia Medical Journal*, April 6, 1901.
Morrow, *Philadelphia Medical Journal*, December 1, 1901.
Dyer, *Philadelphia Medical Journal*, February 10, 1900.
Egan, *American Medicine*, December 14, 1901.
Hammond, *New York Medical Journal*, August 5, 1899.
Hill, *Lancet*, p. 570, 1871.
Medical News, p. 961, 1901.
Philadelphia Medical Journal, December 1, 1901.
Muenchen Medical Wochenscher, p. 143a, 1901.
Southern California Practitioner, December, 1901.
Bulkeley, *Journal American Medical Association*, April 6, 1901.

DISCUSSION.

Dr. George Chismore, San Francisco—Unavoidable absence during the reading of the earlier portions of Dr. Spencer's paper makes it impossible for me to properly discuss its merits. With the parts I heard I fully agree. All over the world the attention of medical men is notably directed to this subject. Local and national societies have been formed and attempts made to devise practicable measures for restricting the spread of venereal diseases. All admit that legal control is a most difficult problem, and the results so far obtained are, to say the least, doubtful. Japan has, I believe, of all nations, the best laws on this matter. Many things conspire to make them effective—the strong central government, the temper and customs of the people. Yet, though they have been in force many years, venereal diseases are still very prevalent. I fully agree with Dr. Spencer in contending that it is the duty of all physicians to consider this subject and strive to aid progress, but in our present knowledge, when a doctor has fairly warned his client of his danger, to me, he seems to have done all that is practicable.

Dr. Krotoszyner, of San Francisco—I fully agree with Dr. Chismore's views upon the subject, and can only offer one more suggestion which it seems to me would offer good results in preventing the spread of venereal diseases. There ought to be a course of public lectures given annually to the educated laity at large—lectures that deal with the most pertinent points as regards the pathology and prophylaxis of venereal diseases. Such lectures have been inaugurated and delivered by the best authorities on the subject in several European cities, and the same procedure was lately adopted in New York, if I am not mistaken. While the time is too short since the commencement of these lectures to rate their value statistically upon the decrease of venereal diseases, the idea strikes me to be a rational one. If we are able to spread the knowledge upon the etiology and dangers of venereal diseases among the educated laity, and through this source to the large masses of the ignorant public, we may thus be enabled not only to diminish the fearful increase of sexual disease, but also to remove from the mind of the general public as well as from that of our own profession the stigma that venereal affections are a disgrace, while we ought to look upon sufferers from such disease rather as unfortunates, and treat them with the same care and charity in our hospitals and kindred institutions as those affected with any other disease.

Dr. D. W. Montgomery, of San Francisco—The control of venereal diseases by law is, I think, hopeless. In the diseases gonorrhea, syphilis and chancroids we have affections that allow the patients to pursue their vocations without, as a rule, giving any outward signs of their trouble; their physician, in whom they confide, is in honor bound not to denounce them. In the few cases where the malady comes to the notice of public officials it would be impossible to imprison the syphilitic patients for the length of time, say for one or two years, during which they are dangerous. The establishment of clinics for the cure of this disease is probably the best prophylactic measure that has been devised. Almost all of the clinics, however, are only open during the day, and a man dependent on his work for his daily bread cannot afford to attend them for any sufficient length of time. As for women, they have a natural dislike of attending a public clinic, especially when afflicted with what is looked upon as a shameful disease. As far as public lectures on these diseases are concerned, I doubt if they would accomplish much good. There should be provision made in the public hospitals for treating venereal diseases; instead, however, it is expressly stated that these diseases, as such, must not be admitted. It is only when they develop complications that can be designated by other names that they may be cared for. I remember the case of a girl with a chancre of the lip, which was probably innocently acquired. It was with great effort I had her admitted to a public hospital, and when admitted she was put in the diphtheria ward.

Dr. Spencer—I agree with Drs. Chismore, Krotoszyner and Montgomery in regard to regulation by law. It must be more in the manner of moral influence and teaching. Dr. Krotoszyner referred to public lectures. I do not agree with that. I think it would be a safeguard if the man doing the lecturing should be selected by the health authorities to teach. As to Dr. Montgomery's remarks, a man with chancre usually does not go around much; but with gonorrhea he may go around and spread the seed.

Dr. George W. Bunn, of the New York Board of Health, has been on this Coast making a study of smallpox, the form of the disease as existing in this and other parts of the country he claims, according to the daily papers, to be new to medical science.

The Federal authorities are preparing to expend $20,000 a year in scientific investigation of criminology. A laboratory is to be equipped wherein expert criminologists and bacteriologists will study the abnormal American and seek to analyze his characteristics, solve the problems of heredity and environment and propose a new treatment for him.

For a number of years the San Diego County Medical Society has been giving some attention to the gathering of a medical library for the use, not only of the members of the Society, but also the profession throughout the county. The trustees of the new Carnegie library building have set apart one room and the shelving therein for the use of the Society and profession as a library apartment.

A French investigator has recently come to the conclusion that the brains of military men give out most quickly. He states that out of every 100,000 military men of the army or navy 199 are hopeless lunatics. Of the liberal professions, artists are the first to succumb to the brain strain, next the lawyers, followed at some distance by doctors, clergy, literary men and civil servants. Striking an average of this group, 177 go mad to each 100,000.

POTT'S DISEASE.*

By EMMA SUTRO MERRITT, A. M., M. D.

POTT'S disease is mentioned in Hippocrates. It undoubtedly has existed from the most ancient times, not only in Europe, but on this continent as well, for a specimen exists in the Peabody Museum, in which the whole dorsal region of the spine is involved, and which proves that this disease occurred among the prehistoric tribes of North American Indians. (1.)

The disease owes its name to Percival Pott, who is said to have made the first accurate description of it, although St. Germain (2.) asserts that it ought not to be called after him, as several other surgeons had preceded Pott in the description of this disease, and it would be as just to call it Camper's, or Severin's disease as that of Pott. Be that as it may, it certainly was Pott who brought its morbid entity into prominence.

He described the disease in a masterly way. One of the chief merits of his treatise was to show the relation between caries of the vertebræ and paralysis of the extremities.

"The true cause of the disease," says Pott, "is a morbid state of the spinal bony column, and some of the parts connected with it, which distempered state of parts will, upon careful inquiry, be always found to have preceded the deformity some length of time." (3.)

The history of Pott's disease is, of course, the history of caries of the bone, of scrofula and tuberculosis; a curious statement, in view of our present knowledge, is the one repeatedly made in old books that Pott's disease is apt to be followed by consumption. For a long time there was great confusion in the classification of spinal deformities. All kinds were described together, the different diseases being simply classed as varieties of spinal curvature. The same causes were supposed to give rise to all, and the same means of treatment were applied indiscriminately. The range was even wide enough to admit curvatures of the spine due to the manifestations of hysteria.

Even after Pott's disease was recognized as a morbid entity, the connection between it and lumbar abscess long remained obscure. Lumbar abscess was considered as a separate disease. It was often given a whole chapter in a treatise on surgery, while the spinal disease on which it depended was scarcely mentioned at all. In his work on surgery, 1819, Samuel Cooper (4.) says: "When lumbar abscess is attended with a carious state of the vertebræ, the affection of the bones is by some considered as a cause, by others as an effect of the rest of the disease." He continues: "The causes of psoas abscess are frequently involved in great obscurity. Sometimes the disease has been preceded by a violent strain in the loins, but very commonly we cannot trace any valid reason for its occurrence."

Dr. Pott's treatment of the disease was founded on his theory of it. He says: "No degree of benefit or relief, nor any of the smallest tendency toward a cure is to be expected until the caries be stopped and the rotten bones have begun to incarn; the larger the quantity of bones concerned, and the greater degree of waste and havoc committed by the caries, the greater must be the length of time required for the correction of it, and for restoring to a sound state so large a quantity of distempered parts." In his treatment he endeavored to obtain anheylosis and not the correction of the deformity. "The thing aimed at," he says, "is the reunion and consolidation of the bones which had been carious and are now become sound. This is the *sine qua non* of the cure, and this must, in such cases, render the curvature, and consequently the deformity permanent." "The issues which he uses," he says, "will restore the use of the limbs, but not the lost figure of the spine." "When two or more vertebræ are affected, forming a large curve, however perfect the success may be with regard to the restoration of health and limbs, yet the curvature will and must remain in consequence of the union of the bones with each other."

How accurate observers will often be puzzled by insufficient knowledge is well illustrated by the remarks quoted below, taken from the work on surgery, (4) by Samuel Cooper, 1819, and from the lectures of John Abernethy (5.) of about the same period.

In regard to the effects of opening psoas abscesses, Cooper (4.) says: "Experience shows that when a psoas abscess is opened in the common manner, death generally follows sooner than when the swelling is allowed to burst of itself. The formation of a large opening, but particularly the aperture being afterwards left unclosed, causes an inflammatory affection of the whole cyst of the abscess and the most violent description of constitutional disturbance."

Abernethy says: "The most important species of chronic abscess that we meet with in practice is the lumbar abscess. In this disease the matter presents in a part of the body which is so remote from that where it was originally formed as not to sympathize with the disease." "Before describing the treatment which I would recommend," he continues, "it will be useful to inquire into the cause of that constitutional disorder which is so generally consequent to their becoming open. It has been ascribed to the admission of air into the cavity of the abscess, or to the absorption of pus from it. That it is not owing to the former we infer, because air does not appear to be stimulating to those surfaces of the body to which it is not naturally applied. The air which escapes from a wounded lung and renders the cellular tissues emphysematous produces no inflammation of it. Air has also been

* Read before the Medical Society of the State of California at the annual meeting, held in San Francisco, April 14 to 17, 1902.

blown into different cavities of the body, to ascertain its effects and it has been absorbed from them, without having excited any inflammation. Neither does air appear to be stimulating to the exposed surface of ulcers which are in a state of disease. Yet, though air seems to have no stimulating property to such surfaces, and therefore cannot be assigned as the cause of that irritation and inflammation consequent on the opening of an abscess, it is of the highest importance in pursuing the treatment which I have recommended in psoas abscess, that no bubble of air should be admitted into the cavity, because it would probably cause the putrefaction of the fluid contained in the abscess, the absorption of which would be very deleterious."

Cooper says: "I have had so many opportunities of appreciating the practice recommended by Mr. Abernethy that I must consider it, in the present state of surgery, as the only one warrantable. By it the severe symptoms under which patients used formerly to perish when the abscess burst, or was punctured and the opening left unclosed, are for the most part avoided, and recoveries are rendered more frequent."

Abernethy's plan was to make a small opening, let out part of the pus, and seal the wound at once hermetically. When the abscess again filled he repeated the process, an so on. In the light of our experience to-day, we can easily see in what the superiority of his plan consisted, viz: in the fact that by immediately closing the part, he prevented infection of the wound.

The principle of suspension and support of the spine is very old. Ambroise Pare in 1579 used a corset of steel. Von Nuck made a suspension apparatus in 1609. The jury mast was devised in 1764 by Levacher. The same principles have been applied in making apparatus for this disease ever since. The materials used being modified rather than the principles of treatment. (6.)

Here is the description of an apparatus used by a Mr. Chessher in England, about 1840: (7.)

"The patient wore a steel collar fitted to the upper part of the pelvis and which supported the parts above it. By means of a rod extending along the back and rising above the head, the spine could be stretched and kept so for any length of time. The apparatus was worn during the day. In the morning, while it was being fitted to the body, the patient was suspended in a neck swing, which was merely a tackle and pulley fixed to the ceiling of the room; the pulley was hooked to the head piece of the collar, and the whole person raised so that the toes only touched the ground. The spine uniformly gained in length every morning by use of the neck swing, and still further by screwing up the collar after lying down in it a couple of hours. The spine gained two inches or more in the course of every day, and lost them again at night on removing the collar. Mr. Chessher's apparatus weighed from ten to sixteen pounds and caused excoriation and pressure sores."

The next subject of interest bearing on the history of Pott's disease which I came across was a heated discussion on the subject of laminectomy, or rather its predecessor, trepaning the spine, between Sir Astley Cooper and Charles Bell, published in 1824. (8.) Sir Astley Cooper, it appears, proposed this operation for injuries of the spine on mechanical grounds. The operation was criticised by Bell on various accounts, but principally because of the great danger of setting up an inflammation of the meninges and the cord by opening the spinal canal. Sir Atsley, in the course of his remarks, says: "If you could save one life in ten, aye, one in a hundred, by such an operation, it is your duty to attempt it, notwithstanding any objections which some foolish persons (referring to Bell) may have urged against it. * * * The operation is not severe. It cannot add to the danger of the patient, and as to the pain, no man who is a man would regard it." And this at a date when anesthetics were unknown. Continuing, he says: "Though I may not live to see the operation frequently performed, I have no doubt that it will be occasionally performed with success. There is no reason why it should not, and he who says it should not be attempted is a blockhead." A way of impressing scientific theories more forcible than convincing.

But reading this controversy to-day in the light of modern experience, we can read between the lines and see where each was wrong and where each was right. We can agree with Bell when he advised his students to "try the operation on a dead body and then judge of the degree of violence necessary to its accomplishment." "One gentleman," says Bell, "tells you the operation is not severe, it cannot add to the patient's danger. By this we may know what are his notions of a severe operation." Certainly in the absence of all knowledge of bacteria, and of cleanliness in the treatment of wounds and without anesthesia, he was indeed a bold man who would counsel opening the spinal canal. On the contrary, with our knowledge of infection by germs and our modern methods of asepsis, Sir Astley Cooper's operation, improved in technique, is not infrequently done to-day.

REFERENCES.

1.—Sajou's *Annual and Analytical Cyclopedia of Practical Medicine*, Vol. VI, p. 201.
2.—*Chirurgie Orthopédique*, L. A. de St. Germain, p. 258.
3.—*Palsy of the Lower Limbs, Chirurgical Works of Percival Pott, Esq.*, Vol. III, p. 482.
4.—*Practice of Surgery*, Samuel Cooper, Vol. I, p. 614, on Psoas Abscess.
5.—*Surgical Works of John Abernethy, F. R. S.*, Vol. II, p. 134. London, 1823.
6.—Sayre, *New York Medical Journal*, Vol. XLI, p. 388.
7.—Geo. W. Epps, on *Spinal Curvature; Its Theory, Its Cure*. London, 1849.
8.—Charles Bell, *Observations on Injuries of the Spine and of the Thigh Bone*. London, 1824.

COUNTY SOCIETY MEETINGS.

The San Francisco County Medical Society met in the parlor of the Y. M. C. A. on Tuesday evening, January 13th, President Kengla in the chair.

After the regular routine business had been disposed of, the president announced that owing to illness in the family of Dr. Ryfkogel, the author of the paper "A Case Showing Acid-Resisting Bacilla in the Sputum," which had been on the evening's program, the reading of the paper would be postponed.

Dr. H. Brunn read a paper on "Some Blood-Counts in Surgical Cases at the Children's Hospital." Drs. J. Henry Barbat, Sherman, Stapler, Caglieri, Kelly, Ophüls and Brunn discussed the paper at length.

Dr. E. O. Jellinek read a paper on "A Report on Three Cases of Ptomaine Poisoning." *

Dr. Caglieri presented resolutions referring to the death of Dr. McCone and outlining the high regard in which the deceased had been held by his associates in the profession, and expressing deep regret at his death. The resolutions were ordered spread on the minutes and a copy sent to his family.

Dr. George C. Pardee's resignation as a member of the Society was presented in writing. The resignation was accepted, and immediately thereafter, upon motion of Dr. Kelly, Dr. Pardee was unanimously elected an honorary member of the Society.

A communication was read from the San Francisco County Homeopathic Medical Society stating that the resolutions recently passed by the San Francisco County Medical Society affirming that the existing law for the regulation of the practice of medicine and surgery in the State is a good and efficient one, and is satisfactory in the manner of its execution, had been unanimously indorsed by the Homeopathic Society at its last meeting.

On motion of Dr. Evans the Secretary was directed to send a copy of the resolutions of the Society and the indorsement by the Homeopathic Society to each member of the State Legislature and to the Governor.

The following resolution was presented and passed by the Society:

Resolved, That the San Francisco County Medical Society hails with gratification the selection by the people of one of its own profession to the chief executive office of the State of California, and that we recognize in Doctor George C. Pardee a man who has ever been faithful to the traditions, honor and integrity of the medical profession.

Resolved, That in the interests of purity and unselfish motives in public affairs, and for the welfare, honor and good reputation of the medical profession of this City and State; we do hereby urgently request the Governor to select from the list of capable and honorable physicians of this City some one who has the respect and confidence of the profession, to serve upon the State Board of Health.

Resolved, That the Secretary be directed to forward a copy of these resolutions to Governor Pardee.

The following named physicians were elected members of the Society: Raymond Russ, William J. Walsh, Harry E. Piper, Charles W. Mills, William F. McNutt Jr., William C. Voorsanger, W. Scott Franklin, Chester Woolsey, Frank Pixley Topping, D. Friedlander, John Van Denburgh, William P. Willard, John V. Leonard, Clyde Laughlin, George L. Sanders, George P. Purlenky, J. Wilson Shiels, Walter M. Dickie, A. W. Fuson, Thomas P. McDonald, Carroll O. Southard, James F. Kearney, Longworth Anderson, Harry B. Reynolds and Herbert Allen.

At the last regular meeting of the Academy of Medicine the election of officers resulted in the re-election of the officers who served last year, namely: Dr. D. W. Montgomery, president; Dr. Dudley Tait, vice-president; Dr. Louis Kengla, secretary; Dr. Henry Kreutzmann, treasurer. The committees will be announced later by the president.

The Fresno Medical Society met on January 6th. The society voted to affiliate with the State Society. The newly elected officers are: Dr. E. J. Coney, president; Dr. O. B. Doyle and Dr. T. N. Sample, vice-presidents; Dr. A. B. Cowan, secretary, and Dr. T. M. Hayden, treasurer. Dr. Sample prepared a paper, which was read before the Society, on the bubonic plague in San Francisco. He referred to a case he had observed and gave the report and described the symptoms. The discussion on the paper was conducted by Drs. Gebhart, Hare and Sherman, and the opinion maintained was to the effect that plague existed in the metropolis, but for commercial reasons efforts had been made to suppress the truth.

The first regular meeting of the year of the Los Angeles County Medical Association was held January 2, 1903. The retiring president, Dr. J. H. Utley, delivered an address on Louis Pasteur.

The officers for the ensuing year are: President, Dr. Rose Talbott Bullard; vice-president, Dr. Fred C. Shurtleff; secretary, Dr. C. G. Stivers; assistant secretary, Dr. Kate Wilde; treasurer, Dr. John C. Ferbert.

Committees appointed were: Board of Censors—Drs. George L. Cole, B. F. Church and L. M. Powers. Rooms and Library—Drs. Stanley P. Black, Kate Wilde, P. C. H. Cahl, E. W. Fleming and T. J. Coffey. Auditing Committee—Drs. John M. Dunsmoor, D. W. Edelman and R. V. Day.

* To be published in the STATE JOURNAL.

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Publication Committee:

Philip Mills Jones, M. D. George H. Evans, M. D.
Henry Gibbons, Jr. M. D. Dudley Tait, M. D.
Charles D. McGettigan, M. D.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

FEBRUARY, 1903.

EDITORIAL NOTES.

HEALTH BOARD IS VINDICATED.

The commercial bodies of San Francisco in joint session passed resolutions early in this month tacitly admitting the presence of bubonic plague in the city, and promising support to the health authorities in the work of eradicating the disease, and rescuing the Coast and nation from a threatened calamity. While the action is tardy and, naturally, taken reluctantly, it became absolutely necessary in order to escape the alternative proposed by the Surgeon-General—State quarantine. The indorsement thus given the "old" Board of Health, forced though it be, has been regarded by the profession as a vindication of their position. There is no feeling of exultation over the fact that these captains of commerce have at last recognized the true motives of the medical experts who gave the warning of danger in announcing the presence of the dread scourge in this city. The doctors who disclosed the existence of the disease here were profoundly impressed over the result they feared their unexpected and unwelcome discovery would have on the material interests of the city and Coast, but they did not falter in the performance of their duty, and got for their reward a perfect torrent of opprobrium. The commercial bodies and lay press did everything possible to discredit the investigation and findings of the medical men. They were accused of sordid motives and were called fakers. For over three years the work of freeing the city of the disease has been opposed and obstructed; sometimes openly, sometimes covertly. The truth could not be concealed, however, and now that the professional view of the situation has been accepted, the work of eradication may be pursued along scientific lines, with promise of success. The health authorities, aided and encouraged by the powerful commercial bodies, can now go forward unhampered in the work of purging the city of the disease, until the ultimate germ has been ferreted out and destroyed; for so long as there is a vestige remaining just so long is there danger. That was a false position assumed which counseled inaction and concealment. The history of plague furnishes plenty of evidence of its capacity to lie dormant for years, insidiously gathering strength against the time of favoring conditions for an outbreak. These conditions doubtless existed in Mazatlan recently, and it is well known with what suddenness the scourge became epidemic at that place. The only safe course is to eradicate, utterly destroy, every trace of the disease to be found, and that is the course advocated by the medical profession. The fact being admitted that cases of the disease have been found here, whether few or many has little to do with the danger involved, the next step, patent to everybody, is to take proper means to stamp it out. Cases of bubonic plague must be treated with even more stringent measures than those employed in fighting smallpox; and publicity is a safeguard rather than a hardship. The meeting of the State Boards of Health in Washington adjourned pending action by California. The representatives spoke in no uncertain terms regarding the course pursued by the State Board and by the State and city civic authorities. They approved the course of the city Health Board and regretted that they had not been supported by the Mayor, press and commercial bodies. The charge that the representatives in Washington had been induced to take the stand they did by commercial bodies in other States desirous of diverting trade from this port, is a reflection on the character of the professional men concerned as contemptible as it is false. Only charlatans, "quacks"—in fact only men who are ostracised by reputable physicians, could be employed in such dirty work. The *Medical Times*, in discussing the situation, says:

> It is our opinion, fortified by private information, that while an open acknowledgment of the correctness of the diagnosis and the existence of the disease was secured, the prime objects—protection and prevention, stand in no better way of fulfillment than ever.

The JOURNAL sees in this "open acknowledgment" the first important step toward securing "the prime objects." Protection and prevention may come only after an acknowledgment of their necessity. The resolution passed by the joint commercial bodies, after the preambles, reads as follows:

> *Resolved*, That this mercantile joint committee, consisting of the officers and other representatives of the State Board of Trade, the San Francisco Board of Trade, the San Francisco Chamber of Commerce, the Merchants' Association of San Francisco, the Merchants' Exchange of San Francisco, the Manufacturers and Producers' Association of California and the California Promotion Committee, hereby strongly urges the Governor of the State and the Mayor and

Supervisors of San Francisco to take such steps at once as shall secure a prompt co-operation of the Boards of Health of the city and State, under the supervision of the United States Marine Hospital Service, to the end that all danger from bubonic plague may be eradicated; that all fears of infection may be removed; that the confidence of the Boards of Health of other States and Territores may be restored, and that no injury, however remote, may result to the foreign and interstate commerce, and to this end we hereby pledge to the officials of the State and city every aid and support of the various commercial bodies which we represent.

MERCANTILE JOINT COMMITTEE,
Frank J. Symmes, Chairman; L. M. King, Secretary.

USEFULNESS OF COUNTY SOCIETY.

Some of the wide-awake Sonoma County physicians are about to organize a county society under the plan provided for membership in the State Society. Before the annual meeting in April every important section of the State will have completed arrangements for organization along the same lines, at least the indications point that way. Members of the State Society residing in localities where there are no county societies, should feel enough interest in the purposes and plans of the State Society to devote a little time toward organizing such a society. Take the initiative, appoint yourself a committee of one to call a meeting of your local confreres. Make a start. Half a dozen good live men, interested in keeping the profession on a high plane, free from the invasion of incompetents; protection of their rights under the laws; alive to the importance of keeping abreast the times in medical and surgical achievements, and who believe that a frequent exchange of ideas tends to brighten the mind, these men—half a dozen—may start a medical society, which in a remarkably short time will increase in numbers and grow in interest. Dr. Cheney in his address of welcome last year to the State Society well said:

It is undoubtedly good for us to meet together and exchange views. No man knows it all. Each one is able to learn something from his neighbor. In the rush of actual work with our patients during the year, we have no time to talk over cases with each other and so to find out how the other man does his work. It is only by such meetings as this that opportunity is afforded for mutual exchange of experiences in our profession. We who belong to this Society and attend its meetings, feel that we are helped by them to increased usefulness.

The same is true of the county society, and in some respects the subordinate is of more value to the member than the parent body. Particularly is this true in the matter of creating and cementing fraternal feeling among worthy members of the profession. With identical aims and ambitions, the petty jealousies and sneering criticisms disappear when practitioners get together and learn to know each other more intimately and find how much in common there is in the noble work to which they are devoting their lives.

A QUESTION OF "PURE FOOD."

The investigation into the affairs of the "Beef Trust" has brought to light some interesting facts. All cattle are inspected by Government inspectors before being slaughtered, and if no signs of disease are noted, they are passed and the dressed beef is ticketed as having "passed inspection," and is thus tacitly guaranteed by the United States Government. (It would be interesting to know what proportion of the cattle "passed" is really diseased.) But not only is the dressed beef thus guaranteed, but all the various products, tinned meats, sausage, etc., are also marked as having "passed Government inspection," a statement that doubtless arouses in the average mind a belief that the article so marked is pure and free from adulterants or preservatives. A high official of one of the big packing houses testified that bologna sausage was colored with zingiber, in order to give it the appearance of good red beef, and that the casing is dipped in gum shellac in order to seal it and prevent deterioration. Mr. Frisbie's crowning argument as to the wholesomeness of this "doctored" sausage, which bears the stamp of having passed United States Government inspection, was: "I ate some yesterday morning and am still alive." Truly, Mr. Frisbie is a brave man. The superintendent of another house testified that "In the preparation of dressed beef we use no preservatives, only water. * * * The meat is kept in coolers three days, then shipped with muslin covers. No chemicals are used." The German Government chemists found that the outer inch of all American dressed beef submitted to them contained a minimum of 5 per cent pure boracic acid. This should be looked into by the American packing houses, for if they use "no chemicals, only water," some one is putting boracic acid on their beef in order to injure their business. The German Government is not averse to allowing its people to eat borated meat, but it objects to having American dressed beef, shipped as free from preservatives, contain *quite* so much boracic acid.

The San Bernardino County Society has completed the necessary arrangements for affiliation with the State Society, and is now in line for protection and progress.

Fresno and Riverside Counties are also important recent additions. There are no counties in the State, or at least but few, not now represented in the State Society, either through affiliation of local bodies or through individual membership. Illinois State Medical Society is at present the strongest in point of numbers in the country, the total membership being over 4000; and this splendid organization was effected largely through the well-directed efforts of Dr. Kreider, State secretary, and editor of the *Illinois State Journal.*

THE EDDYITE BOOK CONCERN.

Probably the biggest book peddling institution in the world, for revenue only, is the association of highly intelligent (?) individuals known in modern English vernacular as the Eddyites, but sacrilegiously taking to themselves the name of "Church of Christ, Scientist." The thoughtful Mrs. Eddy, whose commercial instinct certainly suggests more of the material than the spiritual, though her printed word denies the existence of the material and asserts that man is wholly spirit, has made obligatory upon all her sheeplike following "to sell as many of the books as possible," or, in the event of their not doing so, to be liable to the horrible punishment of exclusion from the society of idiots, or Eddyites. Certainly a lack of commercial ingenuity can not be charged against the founder of the Eddyites. In this country we are impressed most strongly with that phase of the Eddyite movement by which its members are self-constituted medical quacks, but in England the sect seems to be attracting a good deal of attention, owing to its quasi religious attitude. On this score the Dean of Norwich has recently conducted a campaign against the Eddyites in a series of sermons. In one address, his text being, "They that are whole need not a physician, but they that are sick," he demonstrated from Mrs. Eddy's book the sacrilegious nature of her claims. It might be well for some of the ministers of God's people in this country to awaken to the importance of taking a similar stand and thus save the lives of a few hundred children annually.

INSPECTION OF MILK.

At the annual meeting of the Kings County Medical Society (Brooklyn. New York) on January 20th, Dr. Bartley read a report of the committee on milk inspection that is worthy of attention. The commission had examined nearly 300 specimens of milk and had undertaken the work of establishing "certified milk" depots at various places where decent milk can be obtained. It was found that the number of bacteria per c. c. of ordinary "grocery store" milk averaged about 10,000,000, while the number per c. c. in the milk furnished by dealers complying with their requirements and "certified," could easily be kept below 1500, and in many instances was well below 1000. The Hoagland Laboratory had been placed at the disposal of the commission and the time of two men for almost the entire year had been devoted to the work. No funds being available, the commissioners had defrayed all their own incidental expenses, a characteristic unusual to commissions and highly commendable—when one is not a commissioner! So excellent was the showing made that the society moved to recommend the trustees to appropriate funds for continuing the work for another year. This just goes to show what can be done if the effort is made, and certainly this work is worth doing; probably most of us who drink milk would have no lasting regret to know that we were consuming 9,999,000 less bacteria per c. c. of milk than had formerly been our unwilling habit. And doubtless the loss would be agreeable to the stomachs of many babies as well.

NEW YORK'S PHENACETIN.

The Health Department of New York City recently purchased samples of phenacetin from something over 300 drug stores in the various boroughs of the city. Of these samples, less than one-fifth were found to be the pure drug which they purported to be; some were pure acetanilid and most of the impure specimens contained acetanilid in varying quantities, mixed with starch, gums, and other adulterants, and a small amount of phenacetin. This is truly a delightful state of affairs, and that similar conditions would be found to prevail in all parts of the country, if careful examinations were made, there can be no doubt. The present state of pharmacy, "as she is practiced," and therapeutics, "as she is not taught," are most deplorable. If the honest and self-respecting pharmacists and manufacturers on the one hand, and physicians and teachers on the other, do not soon combine on some practicable scientific basis for their own protection, the physician who desires to have his patient take any particular remedy will be forced to buy it himself, in original packages, and dispense it directly to his patient. It is appalling—almost incredible—that four-fifths of the pharmacists in question should be dishonest to the point of endangering life for such a paltry gain in dirty money.

LIMITS IN ADVERTISING.

It is not proper nor is it ethical for the physician to make use of secret preparations or nostrums in his treatment of the sick. If he is competent to fulfill his obligations to the public, and to the authorities licensing him to practice, he is competent, supposedly, to prescribe such remedies as are most apt to relieve the condition for which his aid is sought; or, recognising the limitations of his profession, he is aware of the fact that all remedies will be useless. To prescribe or recommend the use of a nostrum or a preparation the actual ingredients of which he does not know, is to be guilty of fraud, unethical conduct, and incompetence, for he may be doing actual harm to his patient. Con-

sequently it is not proper nor is it ethical, to say nothing of its being dishonest, for a medical journal to admit to its advertising pages—and thus recommend physicians to use—nostrums or preparations the actual active ingredients of which are known only to the manufacturers. That is the position which this journal has taken in regard to advertising. If a reputable and presumably honest manufacturer wishes to offer a "specialty" for advertising, and states the quality of the active ingredients contained, it will be accepted, unless his advertising "copy" contains absurd claims for his preparation. If the manufacturer is one presumably not honest, nor truthful, his advertisement can not be accepted by us. Until we have a professional Bureau of Standardization to deal with these questions, the JOURNAL can do nothing more and nothing less.

EDDYITE MODESTY.

Nothing is so touchingly pathetic nor so beautiful as modesty and self-retirement in the truly great. It furnishes a living example for old and young, for the ambitious and for the honest plodder, and is admired by all. One can not help but feel a glow of admiring sympathy for the candid and Christian modesty of the commercial Mrs. Eddy, when she comes boldly to the front and denies a desire to be called "Mother Mary," or to be reverenced and worshipped with, or even before that other Mary—the mother of Christ. "Mother Mary," indeed! No, she did not ask her beloved followers to call her thus; rather she besought them not to do so; but in vain, for the eddyite is a persistant creature, and an adoring. The eddyite, too, has learned well the text "Suffer little children to come unto Me, and forbid them not, for of such is the kingdom of Heaven." The little children come; they suffer; and they quickly depart to "the kingdom of Heaven," through the Christian assistance of the eddyite and the teachings of his beloved "Mother Mary." And it is even now the twentieth century.

It is with much pleasure that the JOURNAL records the passage of a bill through the Senate, on February 4th, granting a pension of $125 a month to the widow of the late Dr. Walter Reed, in special recognition of his eminent services to mankind in discovering the cause as well as the means of preventing transmission and propagation of yellow fever. Certainly such action is the least that our Government could do in recognition of his incalculable service, a service that, in the opinion of General Leonard Wood, will effect a saving annually of more lives that were lost in the Spanish war, and of more dollars than the total cost of that war.

THE INDEX MEDICUS.

The Carnegie Institute (as well as the medical profession) is to be congratulated for undertaking the publication of the Index Medicus. Like many purely scientific publications, it could not be self-supporting, and hence died; that it is to be brought into life once more and the work taken care of by the Carnegie Institute, will be welcome news to many who have sadly felt the loss of this very valuable bibliographic publication. If we may take this action as indicating, even to a small degree, the intention of the trustees of the Carnegie Institute to foster and aid meritorious bibliographic work, then is the news still more delightful. Nothing is more useful nor more essential to the worker in any scientific or literary field, than even fairly good bibliographies; yet commercially they can not be successful, and consequently their number is very limited. Thus far the trustees of the Carnegie Institute have given rise to the impression that they had determined to become a heating plant on the hot air plan; the news that they have stopped talking long enough to do something is encouraging.

Resolutions were presented and unanimously adopted opposing any change in the existing medical law of the State at the present session of the Legislature, by the California Academy of Medicine at the last meeting, as follows:

"WHEREAS, The present medical law was most carefully drawn on the lines of the experiences of the different States having medical law; and,

"WHEREAS, It had, at the time of its passage, the support of all State medical societies having State boards of examiners; and,

"WHEREAS, It had been in force but sixteen omnths, and has in that time satisfied the vast majority of the medical profession, and has received the unqualified indorsement of the chief medical societies of the State; be it,

"*Resolved*, That the California Academy of Medicine condemns all such proposed medical legislation, and that it expresses herein its confidence in the efficiency of the present law, and in the fairness and practicability of the examinations held by the State Board of Medical Examiners."

SOME CRITICISMS.

Commenting upon the position taken by the STATE JOURNAL in the matter of ethical advertising, the *Pennsylvania Medical Journal* says:

This is the true ethical spirit and the profession of California should see to it that their courageous editor does not "go broke." All mankind is in the pursuit of happiness and all men discover, sooner or later, that the acquisition of money alone is not the surest means toward the universal goal. We can assure the editor of the California State Journal of Medicine that to publish an ethical journal will bring him abundant returns for his labor, though not likely in a financial way. The writer has been engaged in the publication of two medical journals for sixteen years, that never knowingly accepted an advertisement of a patented or proprietary medicine, and while little lucre has accumulated he was never quite "broke," though sometimes the margin was so narrow that escape seemed almost providential. We make this statement for the reason that our Western co-laborer has overlooked the existence of *The Pennsylvania Medical Journal*, the first journal published by a State Medical Society, and *The Pittsburg Medical Review*, its predecessor, equally ethical in character, not to mention the *Illinois Medical Journal*, representing the transactions of the Illinois State Medical Society, which has existed for two or three years on a strictly ethical basis.

By making an examination of the two journals referred to it will be found that Dr. Kœnig makes no idle claim in the matter of ethical advertising, either for his own excellent Keystone State publication or for his neighbor of Illinois. The point the STATE JOURNAL desired to make was that far too many medical publications owe their existence wholly to advertising patronage, and that little or no restriction is observed in the matter accepted.

CALIFORNIA STATE JOURNAL OF MEDICINE, No. 1 of Vol. I of this new medical journal is on our table. It is published by the State Medical Society of California, through a publication committee.

We look through the Constitution of the State Society and find, to our surprise, that it has no committee on Medical Jurisprudence!

It has a standing committee on Nervous and Mental Diseases, and one on Medical Legislation and Education, otherwise it ignores forensic medicine. * * *

Should there not be attention paid to the proper education of the medical man as to his rights, powers and duties as a medical witness? And to the learning requisite to make him a competent medical expert in medico-legal cases? What about railway and military surgery?—*Medico-Legal Journal.*

(Mr. Bell answers his own questions quite fully by referring to the standing committees on Medical Legislation and Education and on Surgery and Anatomy. Medical education embraces medical jurisprudence just as does surgery embrace treatment of railway accident cases and casualties of the battle field.—ED.)

THE BUBONIC PLAGUE.

(*From Northwest Medicine, Seattle.*)

During the past two and a half years, while the plague has been known to exist in San Francisco and the country at large has witnessed the discreditable efforts of the State and city officials to blind the eyes of the world to the facts, proven by local, Federal, and other scientific workers, the fears of its introduction into other sections have been allayed by the confinement of the dreaded disease to San Francisco and its immediate vicinity. Yet uneasiness has constantly prevailed on the Pacific Coast and speculations have been ventured as to when and where it would next appear. Now it seems that the inevitable has occurred, and the claim of its existence in certain Mexican cities, imported directly from San Francisco, remains unchallenged.

If it is true, as has been stated, that the plague is most prone to follow the routes of the shipping, no portion of the coast is subject to greater menace than that tributary to Puget Sound, with its extensive maritime connection with the California metropolis. In view of the existing situation, it is useless to vent our spleen on those whose misguided disregard of the real facts of the disease has helped to foster and spread it. We must face the possibility of its introduction into the northern cities and be prepared to cope with it. The British Columbia authorities have already anticipated us in establishing active measures to meet future contingencies. The Provincial government early acquainted itself with the true situation by sending a medical representative to San Francisco to study the disease in person, and the cities across the border are already prepared to dispose of cases that may arrive and to establish a quarantine whenever it seems advisable.

Heretofore we have seemed content to exclaim, "we are in no real danger, our Federal quarantine officers will protect us against an invasion of the disease." But since it has appeared at a distance from the original focus, the State and local boards of health on the northern coast have realized that they, too, must be armed and ready for a possible struggle with it.

Whatever general or specific measures may be adopted for averting the reception of infected persons, we wisb, in a forcible manner, to call the attention of boards of health of the Puget Sound cities to the fact that there is absolute ignorance of the disease, as concerns personal knowledge, on the part of the medical profession of the Northwest. While we are familiar with the symptoms and treatment of all ordinary diseases, the previous absence of this from our land has prevented the actual study of the plague. In no aspect of the affairs of life is experience of such vital moment as in medicine. It decides the selection of a practitioner by the patient, assures the success of the former, and often turns the scale for life or death. Is it not, therefore, incumbent upon the health authorities at this time to secure a familiarity and experience in bubonic plague, that will serve as a protection against a future incursion of the disease?

We feel it the duty of the cities of the Puget Sound district, especially the larger ones as Seattle, Tacoma and Everett, to commission a competent physician to visit San Francisco and institute a personal study of the plague, where alone it can be investigated in our own land, thus familiarizing himself with its bacteriology, symptomatology and treatment, according to approved methods in vogue to-day. The necessary expense incurred may well become a profitable investment if the first case to reach our shores can thus be early detected, isolated and properly treated.

These suggestions are intended to cast no strictures upon any inspection or quarantine measures that may be adopted. The danger is sufficiently imminent to warrant the anticipation of the approach of the disease, should it escape preventive measures and appear in our midst. Such action is comparable to that of the successful merchant, whose prosperity demands the expenditure of time and money to forestall the fluctuations of the market rather than risk pecuniary loss. But we are now considering the protection of the most precious thing on earth—human life—to accomplish which no sacrifice is too great and no financial expenditure unwarranted, however extensive.

MEDICAL LITERATURE.

Biographic Clinics, by Dr. Geo. M. Gould, is just from the press of P. Blakiston's Son & Co., Philadelphia. It is certainly a most unique and original volume, charmingly written and intensely interesting; as indeed is everything from the pen of Dr. Gould. To disinter from the buried records of great men, dead and gone, a fairly accurate clinical picture, and after the lapse of years to upset incorrect diagnoses and establish correct ones from the fragmentary biographies at hand, would seem, to any one less daring than Dr. Gould, an absurdly impossible task. Yet this is precisely the work undertaken in *Biographic Clinics*; and that it has been well done there can be no question. There seems little doubt, after going over the case presented by Dr. Gould, that the lives of De Quincy, Carlyle, Darwin, Huxley, and Browning were in a great measure made miserable by uncorrected astigmatism and unrelieved eye strain. Undoubtedly there will be many who will smile the sarcastic smile, and comment on the work as being the biased utterance of a fanatical specialist who lays everything at the door of his specialty. Yet there will be others, and their number will grow as the book becomes more widely read, who will take to heart the lesson that it brings to them. That eye strain, like any other persistent nerve drain, may produce and does produce profound disturbance of the general health, and has a very marked influence over the mental as well as the physical condition of some people, no occulist will deny, and to which many of us can testify in ourselves. It is not urged, as they of the "sarcastic smile" class seem to think, that every one who has a bellyache is a proper subject for astigmatic lenses; but it is urged that the ill-defined ailments of many people may be due to apparently remote causes, and that eyestrain, as one of these possible causes, should be determined or eliminated in every such person.

This little book will have more than served its purpose, however, when the great truth and force of one idea it presents shall have been realized: "The patient before us is a history and a prophecy;" the ailment for the relief of which he comes to-day is only a very small part of the problem he should present to the conscientious physician. He is a history —of other ailments, mental and physical, all more or less bearing on the present condition; he is a prophecy, in that his potentialities should be studied and not alone so far as a prognosis of the immediate ailment is concerned.

Whether or not Dr. Gould has here demonstrated his point as to eyestrain beiug the principal cause of the lifelong ill health of those he has studied in this volume, is a matter of opinion—of the individual opinion of each reader—and not a question of fact. But that he has presented a wonderfully strong "brief," and in a forceful, attractive and intensely interesting manner, is a fact. Personally, I think he has proven his claim; but, of course, there may be others who will not think so. P. M. J.

The Association of Medical Librarians and the editors of *Medical Library and Historical Journal* are to be congratulated on the character of the journal which they have just established. In its general appearance as well as in the matter which it contains, it is a good piece of work well done. The lists of medical publications and exchanges will be found to be of very great value to every medical librarian in the country, and to many individuals who have fairly good private libraries of their own. It is to be published quarterly from 1313 Bedford avenue, Brooklyn, N. Y.

Lessons and Laboratory Exercises in Bacteriology: An Outline of Technical Methods Introduced to the Systematic Study and Identification of Bacteria.. By **Allen J. Smith,** M. D., Professor of Pathology, University of Texas: Philadelphia, P. Blakiston's Son & Co., 1902.

This book is designated as a laboratory outline for class work or individual study in Bacteriology; being a series of exercises carried out at the University of Texas, so arranged and systemized as to be adaptable as a laboratory manual. The work, as outlined, may be carried out in eight or nine weeks, of ten hours a week. The subject matter is in the form of lessons, considerable space given to explanatory matter and illustration. Blank pages alternate throughout the book upon which can be recorded the results of the day's exercises. The author does not claim originality in matter or presentation, but has aimed at "a fixation of systematic procedures in class work." In this respect the book fulfills its purpose. The amount of work given is sufficient to give the student a good basis for further investigation. The lessons are well arranged; each step is made clear; it is concise without being curtailed; it is practical, it is modern.

H. P. H.

A Guide to the Practical Examination of Urine for the Use of Physicians and Students. By **James Tyson,** M. D., Professor of Medicine in the University of Pennsylvania. Tenth Edition, Revised and Corrected, With a Colored Plate and Wood Engravings. P. Blakiston's Son & Co., Philadelphia, 1902. [Price, $1.50 net.]

This is a revision, with additions, of a familiar book. The subject matter has been brought up to date. The arrangement is commendable. Each subject is taken up, first with a short general consideration; the different tests or means of estimation are then given, and, finally, the clinical significance discussed; sources of error and avoidance of same are pointed out. Lately there have been a multitude of tests brought forward, or modifications of standard tests, each claiming some advantage along the lines of accuracy or simplicity. The most important are given here, discussed, and their comparative advantages or disadvantages noted. The fact that this is the tenth edition argues for its worth. It is a handy laboratory book for either the student or practitioner, and has to recommend it—clearness, conciseness, modernness and practical usefulness. H. P. H.

A Compend of Human Physiology Especially Adapted for the Use of Medical Students. By **Albert P. Brubaker,** A. M., M. D., Adjunct Professor of Physiology and Hygiene in the Jefferson Medical College. Eleventh edition, revised and enlarged, with illustrations and a table of Physiologic Constants. P. Blakiston's Son & Co., Philadelphia, 1902.

The compend follows the usual arrangement of physiologic subjects, containing chapters, brief and compact, from the physiology of the cell to reproduction. It is designed as an assistance to the student during attendance on lectures. It is not a laboratory guide—it certainly is not a reference book. The usefulness of quiz-compends in physiology to-day finds a very limited sphere. As an example of such a book it is creditable, and the subject matter is recent.

H. P. H.

The Physician's Visiting List for 1903-4, issued by P. Blakiston Son & Co., Philadelphia, marks the fifty-second edition of this complete and compact little publication. A visiting list, to be carried in the

pocket, has come to be indispensable to the physician, and the fact that Lindsay & Blakiston's list has enjoyed popularity for half a century is sufficient evidence of its practical worth. The list may be ordered through any bookseller, and a dollar is the reasonable price.

The State Journal acknowledges the receipt of two monographs from the author, Dr. William A. Edwards, Coronado. The titles are, "Littoral California," read before the Climatological Society at its last meeting, and "A Study of the Relation of Rheumatism and Appendicitis," read before the San Diego County Medical Society.

The January number of the *Southern California Practitioner* began the eighteenth year of its useful life. Being such a handsome publication it appropriately may be given the feminine gender and congratulated upon coming of age. Long may she live and flourish.

The California State Journal of Medicine is a neatly gotten up journal, and will no doubt make itself a general favorite on the Pacific Coast.—*St. Louis Medical and Surgical Journal.*

MEDICAL SOCIETY MEETINGS.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

At the regular meeting of the San Francisco County Medical Society, on Tuesday evening, February 10th, Dr. George F. Shiels discussed Edebohl's operation for nephritis, reading extracts from Dr. Edebohl's reports showing successful results in some cases where decapsulation of the kidney had been performed.

Dr. Huntington said that as such a large mortality is mentioned in the monograph, he could not see anything in the operation under present knowledge that looks to its adoption generally.

Dr. Terrill said he was favorably impressed with the description given of the operation, but could not fail to observe the large number of failures referred to in the schedule quoted.

Dr. Bowers said there might be cases of contracted capsule where relief could result through the operation. There may be better results hereafter, but it is still open to doubt.

Dr. Johnson said he had been engaged in observing results in the laboratory on dogs, and had not been much impressed with the operation of decapsulation of the kidney as mentioned by Edebohl. The concensus of opinion is that relief comes in these cases from blood-letting and reduced pressure.

Dr. Sprague read some notes he had made on the subject, as follows:

"After listening to the interesting remarks of Dr. Shiels, I should like to say that I believe the time is near when chronic Bright's disease will be generally recognized as having for its etiology a chronic gastro-intestinal, or simply a chronic intestinal indigestion; and I wish to go on record as saying that more good can be accomplished in the treatment of this disease by directing our therapeutics to the morbid processes in the alimentary canal than by treating any of the symptoms or pathological conditions dependent upon a faulty metabolism.

It seems to me the only possible indication for an incision into, or a decapsulation of, a kidney in chronic Bright's disease is, as Dr. William H. Porter says, when the capsule interferes with the normal 'contractibility and expansibility of the renal gland taken as a whole,' which is due to the variations of blood pressure within its substance.

"We all know that chronic Bright's disease cannot be histologically cured, but that in many instances a physiological cure can be accomplished we are well aware; for we have all seen cases of this disease where its remissions have been prolonged, and perfect health has been apparently restored. As a person may, with care, live for years in apparent health with only one kidney, so, also, may one enjoy fair health indefinitely with partial degeneration of two kidneys; in fact, autopsies have often disclosed advanced disease of both kidneys when patients have died from other causes, and have never, apparently, during their lives, suffered from renal insufficiency. Bright's disease is an oscillatory affection, with its exacerbations and remissions, and we are apt, therefore, to be misled in ascribing wondrous results to therapeutical novelties; consequently it behooves us to wait for a reasonable length of time before deciding whether decapsulation is a justifiable procedure. We have, in nitroglycerine, from its power of reducing blood pressure, a means of accomplishing much the same beneficial results as can be ascribed to, or expected from, decapsulation.

"This, of course, is not the time to discuss other than surgical measures for the relief of Bright's disease; but I hope, in the near future, to have something more to say on the subject of treatment, much of which has been learned from a close, personal experience with the malady. However, if the intelligent application of therapeutis, directed from an etiological standpoint, should fail to arrest the progress of chronic Bright's disease, or to reduce an abnormal renal tension and parenclymatons edema, which are the only pathological conditions decapsulation is likely to overcome, then, and not until then, I would say decapsulation is justifiable.

"In conclusion, it seems to me more reasonable to expect good results from the knife in carefully selected cases of acute than in chronic Bright's disease."

Dr. Shiels, in closing, said that where nine cases were reported cured, in many instances where the attending physicians had given up hope of recovery, he was of the opinion that at least under these conditions the operation should be undertaken, regardless of experiments on rabbits.

Dr. Johnson objected to Dr. Shiels' criticism on laboratory work, and asked for the record of a single recovery of interstitiae nephritis through decapsulation of the kidney.

Dr. Shiels disclaimed intent to cast any reflection on laboratory research, but, on the contrary, held such work as of the greatest importance.

Dr. George Goodfellow read a paper on "Treatment of Gunshot Wounds,"* particular reference being made to wounds in the abdomen.

Dr. J. Henry Barbat said he did not think it advisable nor possible to treat all gunshot wounds in a similar manner. It is astonishing how many times a missile passes through the chest without injury to the great vessels. He advocated dressing and drainage.

Dr. Huntington said that modern weapons made much less serious wounds than those formerly used, and that some of these wounds may be treated immediately by dressing and some by drainage.

Dr. Shiels advocated immediate treatment on the firing line in battle. In case of abdominal wounds, open the abdomen and put in a large Mikulicz drain

* Dr. Goodfellow's paper will be published in the March Journal.

before sending the man a long distance on a stretcher; his chances of life were less if sent back without this preliminary treatment.

Dr. Carpenter said that an interesting case came under his observation where at an autopsy on a man who had been shot through the stomach and lived three weeks, the stomach wounds were found completely healed. An abscess, the cause of his death, was found lower in the abdomen.

Dr. Cooper said that in the Boer war a surgeon who had been shot in the abdomen refused absolutely to take any sort of nourishment tendered him by well-meaning attendants on the field. He had eaten but little for some time before and his stomach was empty. The wound in the abdomen healed rapidly and the connection between the patient's abstinence and recovery was interesting.

Dr. Morton said that he advocated drainage; if the wound be clean and sepsis not feared through the introduction of cloth or substance adhering to the bullet, close it up.

Dr. Goodfellow in closing said his paper was more in the nature of suggestion than otherwise. In regard to wound being aseptic through the agency of the bullet, the latter does not carry microbes. He advised non-interference with small-caliber wounds in abdomen. With large caliber wounds there are few if any recoveries—the mucous membrane and intestines are badly torn. With small-caliber the mucous membrance will at times evert and the contraction of the muscular fibers close the wound. When several tears occur, he had performed a V-shaped operation to get at the injuries all at once. With regard to the empty stomach, it had been his observation that soldiers' stomachs were usually in that condition to a more or less degree.

Dr. E. G. Frisbie exhibited portions of intestines removed in an autopsy just performed by himself and Dr. Kelly. A band of adhesions due to previous inflammatory trouble had formed between the kidney and abdominal parietes, through this about eight feet of intestine had passed and become strangulated. In examining the intestine he noticed a very long and peculiar Meckel's diverticulum, which was exhibited.

Letters were read from Governor Pardee acknowledging his honorary membership in the Society, and promising to give careful consideration to all bills coming to him relating to medical legislation.

Dr. Carpenter read the draft of a letter to be sent to President Roosevelt advocating the appointment of Dr. Chester Rowell, at present State Senator from the Sixteenth District, to membership on the Panama Canal Commission. On motion the letter was accepted as the sense of the Society and ordered to be sent to the President.

CALIFORNIA ACADEMY OF MEDICINE.

The regular meeting of the Academy was held at the offices of Dr. Sherman on the evening of January 27th, Dr. Montgomery in the chair.

Dr. Harry M. Sherman presented a patient showing recovery from pus joint at the knee. Dr. Sherman said that the point he wished to make in presenting the case was that a brisement at any time in the course of the case would have been a trauma. The tendency of these knees is to pass gradually into a flexed position, that tendency had been combatted, and apart from that the knee had been left to joggle itself loose. The patient says his range of motion is still increasing.

Dr. Douglass W. Montgomery showed a patient suffering from Leukoplasia of the Tongue that appeared during secondary syphilis. He said:

"Leukoplasia rarely occurs in the secondary stage of syphilis. Danlos, in reporting a case, searched the literature in vain for any reference to it previous to March, 1898.

"The patient, a Scotchman, 37 years of age, came to the University Clinic August 23, 1901. Except for rheumatism, the family history was good. Both his father and mother are alive. His mother suffers from rheumatism, and an older brother has rheumatism of the left shoulder. In August of 1900 the patient acquired a sore on the lower surface of the penis while in Manila, P. I. This disappeared without anti-syphilitic treatment. In October of that same year he was bedridden with rheumatism of the right ankle. About February of the next year he showed symptoms of secondary syphilis. When he came to the clinic he had a generalized lenticulopapular syphilid.

"The most troublesome lesions he had, however, were in the mouth. The dorsum of the tongue was covered with large, flat papules, and there were a great number of mucous patches on the inner surface of the lips and cheeks. The patient both smoked and drank. Under treatment the papules on the back of the tongue slowly subsided, giving place to glossitis, the smooth, bald tongue of secondary syphilis, and mucous patches. These lesions in turn gradually ceded, and in their place the tongue became leukoplasic. There is a deep furrow down the middle of the tongue, which is probably a natural feature. The dorsum of the tongue is coated with a coating such as is seen in indigestion. Over a large part of the anterior surface of the dorsum of the tongue there is a white opalescent coating which is particularly dense, solid, smooth and white in two patches. These patches are situated symmetrically, one on each side of the median line well out toward the edges of the tongue, where there were formerly two persistent mucous patches. These particular mucous patches were situated in leukoplasic areas, and were covered by a dirty gray coating.

"The tongue is not at present nearly so painful as it used to be. At one time it was spontaneously painful, but now it is only unduly sensitive to such things as hot drinks, pepper, spices, and to touch from food or the teeth.

"Syphilis and arthritism are recognized as the two great constitutional causes of leukoplasia, and tobacco, excessive mercurial treatment, alcohol, spices, vinegar, unclean, irregular, or absent teeth are the principal local causes. This patient has present quite a respectable number of the above causes, and therefore the prognosis cannot be considered very favorable. Barbe and Gaucher have, however, reported two cases where the leukoplasia of secondary syphilis disappeared under treatment with mercury, and the patient in the present instance is slowly improving.

"In this case the treatment with mercury was at first tentative, because the patient was able to come to the clinic only once every two weeks, and it was feared he might, while absent, get stomatitis, and an increase of the irritation in the mouth. Because he was getting small doses of mercury he was also given iodid of potash for its additional effect in combatting the syphilitic virus. Afterwards he was able to come to the clinic once a week, and at each visit he was given an intramuscular injection of a gram of a one per cent solution of bichlorid of mercury. For the past five months he has been receiving, with fair regularity, three such injections a week of one or two centigrams of bichlorid of mercury. Locally the tongue has been swabbed with a 10 per cent soluton of chromic acid. The above-mentioned persistent erosions were induced to heal by scrubbing them with a strong (five per cent) solution of bichlorid of mercury in alcohol. It was considered

very important to secure healing of them for fear they should become the starting point of epithelioma."

Dr. S. J. Hunkin presented a patient showing recovery from operation for tuberculosis of the ankle joint.

Dr. Hunkin said, in presenting the case:

"Attention is called in the foot of the boy on the table to the result attained by what I think is a new operation for tuberculosis of the astragalus. It has long been accepted that in the great majority of cases of ankle joint tuberculosis the original focus is located in the astragalus, and especially so in the head of the bone, and later involves the joint by extension to contiguous tissues. Modern surgeons, therefore, have practiced a rather early radical extirpation of the astragalus as the acme of conservative surgery, when a diagnosis of focal tuberculosis astragalus has been made and good results have thereby been usually secured; and at present a foot riddled with sinuses, leading to a tuberculous tissus, evidences rather bad surgery in a child who has been under regular treatment. Practicing along these lines I had been often surprised after the extripation of the astragalus in the early cases to find how very little the cortex of the bone had suffered, and also in the later cases, when the osseous structure of the bone was perhaps entirely disorganized. Often the articular cartilages, except for a few tiny (worm-eaten looking) punctures, in a small area or areas were apparently unchanged and the joints, notwithstanding these apparent punctures, were seemingly normal. One has the feeling that if the bone focus could have been removed and the progress of the disease checked, the joint would have recovered. While resecting the bone by the anterior incision the exact condition of the joint surfaces was especially evident only after the astragalus was in the basin; but later, operating by the Kocher method, it was found that the condition of the joint cartilages and the absence of joint involvement was demonstrable before the bone was extirpated.

"In two cases of relapsed talipes varus following a suggestion (I think) of Cheadle, I had trephined the astragalus from the external surface and hollowed out its interior sufficiently to allow of a partial collapse, which secured an easier and a better replacement of the foot. Although the astragalus in these cases must have been greatly altered in shape, a movable ankle joint resulted and I determined that in the next case of tuberculosis astralagus, finding the joint of normal appearance, I would remove the bony tissue and leave the cortex *in situ*; and this maneuver was successfully performed in the boy presented. The Kocher incision and disarticulation of the foot showed both the tibial and calcaneal articular surfaces apparently healthy. The bone was then trephined in the outer surface and found tuberculosis, when the whole osseous structure was removed with the curette. In order to be sure that every particle of bone was removed, the head was also opened on the internal surface of foot, so that the whole cavity was readily explored—the seapho-astragalus joint was exposed and found satisfactory, and then, as most of the swelling had been around the head of the astragalus, the contiguous seaphoid was trephined and demonstrated to be sound, and closed. The cavity of the astragalus was then filled with carbolic acid, the joint surfaces were flooded with the same, followed as usual with alcohol, and the wound closed, except for a small opening on either side, allowing for drainage through the bone. Daily thorough douching was practiced a few times, until collapse or contraction of the cavity prevented it. There was considerable inflammatory reaction for a few days in the ankle joint, but otherwise healing was uneventful and the wound was closed in about two weeks. The boy is now rather less than three months from the operation and the result is before you. The boy has not yet been allowed to walk upon the foot, although, except for the scars, it appears in every respect normal. All motions of the ankle are nearly, if not quite, perfect, and examination barely shows which is the foot operated upon. In every respect it shows a decided advantage over the result shown by resection, and in selected cases the operation can be expected to give a much better functional result."

Dr. Sherman said that Dr. Hunkin's work was on the right lines. An early operation to remove a tuberculous focus was in order whenever the focus could be located and reached. The hope was that other foci did not exist and that the disease was being jugulated. In this, one had varying fortunes—sometimes success and sometimes failure. So far as the astragalus was concerned, he had made a practice of removing the whole bone, as the foot did excellently without it; and then, he was sure all the foci were out.

Dr. Rixford said he did not think it necessary to cut the tendons in the operation. Dr. Hunkin replied that the tendons were frequently cut accidentally, but that the repair could easily be made.

Dr. Rixford in congratulating Drs. Sherman and Hunkin on the success of their operations quoted the late Dr. Elias Cooper as saying that the surgeons of San Francisco obtained a greater number of good results in their operations than those of any place in his knowledge.

Dr. Philip King Brown read a preliminary report on his observations of strongyloides intestinalis and exhibited microscopic specimens of embryotic parasites.

Dr. George H. Evans discussed the report.

Dr. Sherman presented a large palm thorn, fully 3 cm. long and about 4 mm. wide at its base, which he had removed from the flexure of the elbow of a boy that morning. The boy had hurt his elbow three weeks before and a large loose fragment was found detached from the bone, just in front of the epitrochlea. There had been no wound and very little impairment of motion, but tenderness, especially if the fragment was touched. By much questioning the history of a previous fall into a palm plant a year before was elicited and at that time there was a little "pin prick," but there had been no lameness nor disability following. Dr. Sherman agreed with the diagnosis of a probable fracture, though just what he could not say, and had cut down on the thorn. It was extraordinary that so large a foreign body had lain in a place of such constant motion as a boy's elbow for a year without causing local symptoms.

One would have expected that, as the tissues pressed against this thorn, the greater pressure on the base, as compared with its point, would have moved it along to some more quiet location; but this particular thorn had waited for the concussion of a second fall to start it on its journey.

Resolutions were passed condemning proposed medical legislation. (Resolutions in full will be found on page 98.)

The building for the National Medical College, the erection of which was provided for by a decree published December 1, 1888, is about completed. The structure is two stories high, and of Greek architecture. It will be fitted with modern appliances and contain the most complete medical library ever collected in Mexico. There also will be a chemical laboratory, as well as a hall fitted for microscopic studies, and a dissecting room. The structure has cost so far $226,000, not including fixtures.—Monterey (Mex.) *News*.

SYMPOSIUM ON HYDROTHERAPY.

HYDROTHERAPY.*

By GEORGE A. HARE, M. D., Fresno.

A BROAD survey of the field of clinical medicine and therapeutics the past year shows much progress along many lines, both of experimental investigation and practical demonstration. But I think in no other department of medicine has experimental work been attended with more practical results than have been achieved by the workers in the field of scientific hydrotherapy.

The overwhelming evidence that hydriatic procedures are among our most rational and scientific resources has created a demand for further knowledge in this field of physiological therapeutics, And, as I introduce the subject of hydrotherapy for your consideration and discussion, I do so not as a specialty or hobby, or for any one particular class of diseases or conditions; but as a valuable, practical, and almost unlimited resource of the clinical therapeutist.

No attempt will be made to outline in detail the treatment of any class of disease, but my purpose is rather to present to you some of the scientific principles underlying hydriatic procedures. and to point out a few of their practical applications in order that we may have a better view of the wide and varied possibilities which are to be found in this most interesting field of therapeutics.

The literature of this subject is so very voluminous as to surprise any one who will undertake to become thoroughly acquainted with it. No attempt, therefore, will be made in this paper to give anything like a complete resume of the literature of hydrotherapy. We will content ourselves with simply mentioning a few of those whose labors have aided in placing hydrotherapy in the front rank of scientific therapeutic procedures.

Hippocrates was a keen observer in many departments of medicine, and pointed out clearly that the body was made warmer by a short cold bath, and made cooler by a short warm bath; a truth which has stood the crucial tests of modern investigators, and the Asclepiads became famous from the therapeutic use which they made of water.

In 1697 Sir John Floyer, of England, published a work on hydrotherapy which, although it antedated the invention of the thermometer, showed very careful observation and research. He advised that warm applications should always be made before taking a cold bath.

His work was followed at a later date by that of Currie and Jackson, who in the latter part of the eighteenth century revived great interest in England. These latter did a large amount of experimental work. Their work was more nearly of a scientific character than any others in this field of medicine prior to the nineteenth century. Before this day the thermometer was unknown, and for this reason their scientific researches were of necessity less accurate. In the early part of the nineteenth century Louis Fleury, of France, made a practical study of the control of temperature by the use of water. His work was very accurate and scientific. He laid particular stress on the use of cold water in the control of temperature. Like many other experimenters he was enthusiastic in the work, and without doubt carried the use of cold baths in some instances beyond the limit of prudence.

In 1784 Schuller, of Germany, published the result of his experimental work in hydrotherapy, demonstrating some very practical truths. He trephined the skulls of rabbits, and demonstrated that a cold, full bath, or cold applications, either to the spine or abdomen, caused dilation of the cerebel vessels, followed by the reaction of contraction. Ice applied to the head caused contraction of the cerebel vessels when long continued.

These experiments of Schuller have all been repeatedly verified by more recent observations made upon men, particularly by the work of Vinaj. From the work of this experimenter has developed the practical idea of controlling the circulation of the deeper tissues and viscera by applications of heat and cold to the surface of the body.

In the latter part of the eighteenth century Dr. Benj. Rush, of Philadelphia, made many observations in the use of cold water, which he used extensively in many diseases. In 1795 he was followed by Dr. Bard, of New York, who advocated, and made use of, cold water in the treatment of fevers.

In 1801 Henry Wilson Lockett, of Virginia, published a thesis on the warm bath which is the most accurate of this period. He showed that the full bath at 107° raised the pulse from 72 to 104 per minute; that the bath at 90° diminished the pulse from 80 to 64.

Dr. John Bell, of Philadelphia, wrote a work on baths in the middle of the present century which was a credit to the author, and marked an era in the history of the development of hydrotherapy.

Helmholtz, the great leader in many lines of scientific work, demonstrated that the rate of transmission of nervous impulse could be reduced to one-sixth that of normal by the application of cold.

Modern scientific hydrotherapy, however, is largely due to the labors of Ziemssen, Brand, and Liebermeister, of Germany, and more especially to Winternitz, of Vienna, who founded the first large clinic of hydrotherapy, at the Royal University of Vienna, and established its use on such a basis of scientific data that nearly every large university of Europe now gives scientific instruction and practical demonstration in hydrotherapy. To his exhaustive labors we are indebted for a knowledge of many of the most valuable truths of this science.

Probably no one person has done more to bring together the truths of hydrotherapy, and classify the same in a scientific manner; nor has any single investigator enriched this field of therapeutics by a larger endowment, and by richer material, than has Kellogg, of Michigan. His recent classical work on hydrotherapy has been freely consulted in the preparation of this paper. From the almost innumerable experiments of this investigator we mention but a

* Read before the Medical Society of the State of California, at the annual meeting, held in San Francisco, April 14 to 17, 1902.

very few of the truths which by his work have been brought to a practical demonstration.

That heat production is increased by short cold applications.

That arterial tension is raised by short cold applications.

That short cold applications quicken the heart beat.

That prolonged cold applications diminish the pulse rate and increase the force of the heat.

That cold applications increase the blood count. (I believe this was first pointed out by Winternitz, of Vienna.)

That a cold douche, or ice bag, to the epigastrium increases the amount of hydrochloric acid in the gastric secretion.

That the long hot bath has a very depressing effect, as evidenced by its influence on the fatigue curve of muscular capacity.

That oiling the surface of the body, if exposed to the air, increases the radiation of heat 50 per cent.

The limits of this paper forbid even the mention of the work of Dujardin, Beaumetz, Simon, Baruch, Landois and Sterling, Austin Flint, Bouchard, Beni Barde, Riley, Baum, Stewart, and a long list of other and honored experimenters.

If any one thinks that hydrotherapy can be safely administered by the unskilled, successfully utilized by the empirical, or be easily comprehended by the superficial physician, we invite him to dispossess his mind of that idea by a brief consideration of some of the physiological processes which may be controlled almost at will by the scientific use of heat and cold.

But before we can have any adequate appreciation of the vast resources which the hydriatist has at his disposal we must bear in mind that the seventeen square feet of skin surface has several millions of sweat glands, aggregating over 1100 square feet of surface of perspiratory ducts, with their several miles of nerve fibers. That these sweat glands are constantly producing about one and one-half ounces of sweat per hour, the evaporation of which eliminate more than 100 F. heat units, but capable of producing sixty ounces per hour, the evaporation of which would eliminate more than 4000 F. heat units. Besides this, the skin is also a large vascular reservoir, capable of holding one-half the blood of the entire body. This large vascular reservoir can be filled or drained in a few minutes; but by no other means so quickly and accurately, and under such absolute control as by hydriatic methods.

The skin also contains the special nerve endings, from which arise a large proportion of those reflexes that control the vital processes—respiratory, circulatory, chemical and thermogenic. As a controller of these vital processes, by both direct impressions and reflex action, water is today accorded the first place.

Both heat and cold produce effects in three ways: First, by direct influence (primary); second, by reflex action, through the nerve centers, and third, by reaction, or secondary effect.

Starting with the experiments of Schuller and Vinaj it has been demonstrated that the blood supply of every organ can be controlled by thermic applications to the surface of the body; and that almost without exception the blood supply of every organ is influenced in a similar manner, and by every agent that influences the overlying skin. *e. g.,* A long continued hot fomentation or hot douche to the epigastrium will dilate the vessels of the skin over the stomach, and will also by reflex action, dilate the vessels of the stomach. Hot applications over the lower abdomen will increase the blood supply in every organ of the lower abdomen and pelvis, while a long continued cold application will lessen the blood supply both of the skin and the underlying viscera.

The primary effect of heat is to stimulate. It quickens all the vital processes, it increases the production of heat. These effects are produced, not only on the superficial tissues in contact with the hot application, but as just pointed out, the same effect is produced in the deep viscera by reflex action through the nerve centers.

The physiological reaction, or secondary effect of hot applications is a slowing of the vital processes, a lowering of bodily temperature, and a general condition of sedation. A short hot bath increases the functional activity of the skin, brings a large amount of blood to the cutaneous vessels, and, if the application be short the secondary effects immediately follow, which are a lessening of the production of heat and a general sedation; for these reasons the short hot bath is a rational, physiological method of cooling the body. If, however, the hot bath or hot application be prolonged, it may be carried beyond the reaction period, in which case there is continued increased heat production, and if carried long enough will result in great exhaustion.

The primary effect of cold is depressing, sedative, and is always manifested when cold is applied to a living protoplasm. Heat production is lessened. Nature, however, makes an attempt to counteract the effect of the cold applications by suddenly increasing the production of heat, and increasing the blood supply to the cold area. This is what we term the reaction effects of cold, the extent and duration of which are determined by several factors, among which are:

First—The sum total of the vital powers of the patient, from which vital power the reaction effect must come in a wavelike movement.

Second—The intensity of the cold application.

Third—The duration of the application within certain limits; generally speaking, the greater the vital forces the colder the application; and the longer the time, but within narrow limits, the greater will be the reaction.

A short cold bath, therefore, lessens heat production and lessens cutaneous blood supply, but is followed by reaction of dilatation of the

cutaneous vessels with an increase both in the production and elimination of heat. We all know that cold applied to the body will cool it (and it will do it every time), yet there is no more physiological method of increasing the blood supply to a part with an increase production of heat, either local or general, than by a short cold application or bath.

Now, if a cold application or bath be continued we may smother the reaction effect of cold, which would be increased blood supply and heat production; and we may permanently maintain the primary sedative effect of lessened blood supply and lessened heat production. A recognition of these principles is of the utmost importance in controlling the diseased processes of the deeper viscera.

Bearing in mind that the reaction which follows the application of heat or cold is always the reverse of the primary action it is easily demonstrable that by the use of either heat or cold alone we can either increase or diminish the blood supply of every part of the body at our pleasure. These effects are easily demonstrable, always follow this physiological sequence, and are always certain to the operator who is shrewd in his observations and scientific in his methods.

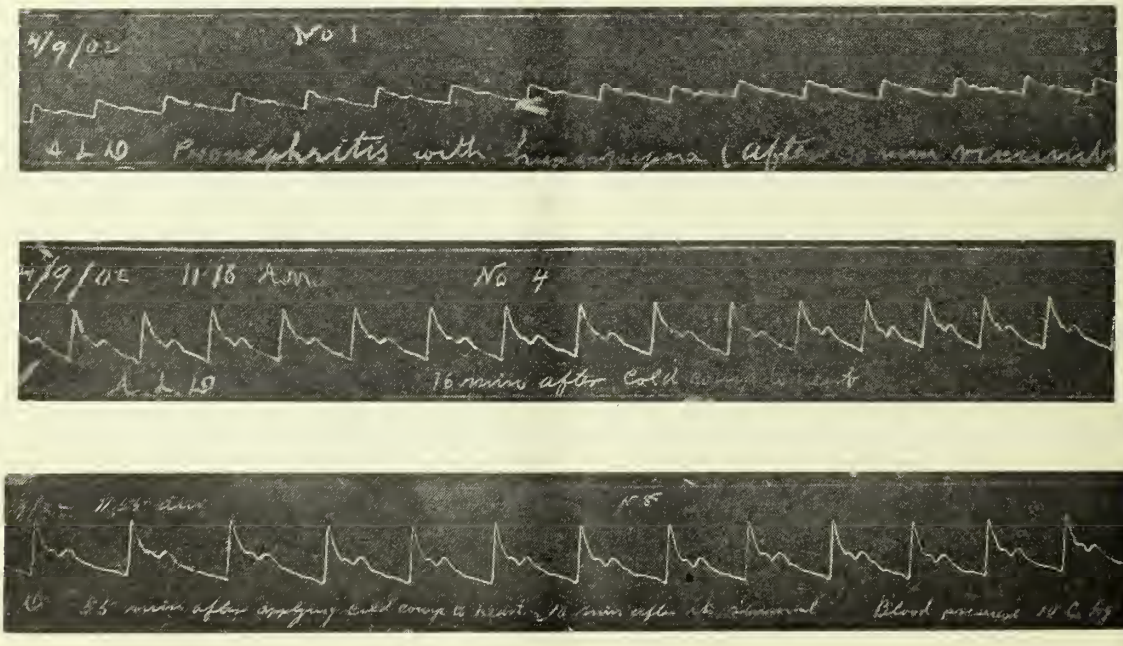
Had the principles of hydrotherapy been clearly understood, and scientifically used, the blood-letter of the past would have found little occasion to puncture the skin for the purpose of depleting any portion of the body to fully meet his most exsanguinistic ideas.

Cold or heat applied to a given area causes the same effect over that area whether the area be great or small. *e. g.,* The cold compress over the liver will lessen cutaneous blood supply, and also hepatic blood supply. Cold applied to the entire surface of the body would lessen the blood supply of all the surface of the body, and would also lessen the blood supply of all the deeper viscera; but in this case we must remember that when we lessen the blood supply of the entire surface of the body we must send a large volume of cutaneous blood somewhere else, and here comes in the mechanical effect of cold as pointed out by Kellogg. All the deeper tissues will be engorged; and ignorance of this principle, through lack of shrewd observation, has caused much of the harm that has resulted from the use of the cold bath. I wish to emphasize, that it is ignorance of the scientific accuracy of hydriatic procedures that has caused all the prejudice and criticism against the use of water.

Time will permit only a brief mention of the resources which hydrotherapy offers to the clinical therapeutist in the way of heart stimulant and tonic, and to make this matter clearer I will ask you to examine these sphygmographic pulse tracings which I pass around, which are intended merely as an illustration of the practical value of cold as a heart tonic, and to emphasize the fact that by neglect of this use of cold we are overlooking the most practical, and by far the most valuable cardiac stimulant and tonic known to therapeutics.*

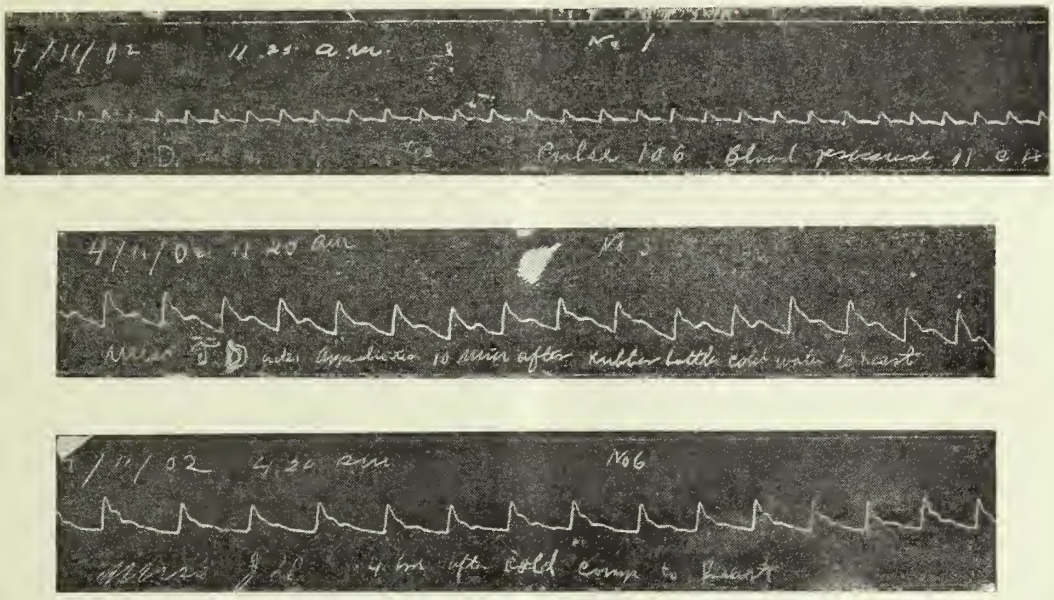
A cold compress over the heart makes the beat first quicker and stronger, then slower with

No. 1—PYONEPHRITIS.



* Dr. Hare exhibited several sphygmographic tracings, two of which are reproduced, referred to as Nos. 1 and 4.

No. 4—APPENDICITIS.



greatly increased strength; at the same time blood pressure is lessened, but by the proper use of heat on other parts of the body blood pressure may be lowered at will.

These tracings, as you will observe, are made from a case of appendicitis, in a patient age twenty-one; a case of pyonephritis, in a patient age thirty; a surgical case of perineorrhaphy complicated with cystitis, in a patient age forty-eight; a case of traumatism of the left hip and leg of six weeks' duration, in a patient age seventy, and a case of mitral insufficiency, with compensation, in a patient forty-six years of age. These will serve to illustrate the practical value of cold as a heart stimulant and tonic. I wish to call special attention to cards 1 and 4, the last tracing on each showing the long continued influence of the cold compress.

What other equal resources have we so rational, harmless. and efficient in cardiac weakness, whether from simple dilation, valvular insufficiency or febrile exhaustion or toxemia, in all of which cases the author has used the cold precordial compress with results equally as good as indicated by these pulse tracings?

In surgical cases threatened with cardiac failure I have found the cold precordial compress a sheet anchor. As a safeguard to the heart against threatened complications in acute inflammatory rheumatism, the author has made use of the cold compress since 1887. I believe Kellogg was the first to call attention to this most valuable use of cold. He has recently pointed out, inasmuch as this cardiac stimulation is a reflex action due to the influence of cold on the nerve endings of skin over the heart, that it is necessary to remove the cold every 30 or 60 minutes and make a momentary application of heat, or use friction in order to maintain the sensibility of the skin, otherwise the cold applications would give us the reverse effect.

Bearing in mind that cold is a powerful stimulant to the respiratory centers, as well as to the heart, the anesthetist finds he has a perfectly safe and rational stimulant, the proper use of which will greatly aid in guarding both these functions against the fatal narcotism of anesthetics. (My experience in this line has been most gratifying). Of course heat abstraction must be compensated by hot applications to other portions of the body.

Winternitz has pointed out that cold is the best known stimulant for cardiac weakness, but with few contra-indications, and Kellogg has drawn a graphic comparison contrasting the effects of digitalis and alcohol as cardiac stimulants with that of cold, in the following words:

When alcohol lessens the power of the heart, as shown by the experiments of Hare and other observers, it at the same time weakens the constrictors of the vessels, and so dilates the small vessels and lessens the blood pressure. In other words, alcohol, while lessening the power of the heart, at the same time lessens the amount of work it has to do. If the work is lessened more than the cardiac power is weakened, there may be a temporary gain to the patient in a given case.

Digitalis produces an effect the opposite of that of alcohol, causing the heart to contract with greater vigor, and also lessening the caliber of the small vessels, thus increasing peripheral resistance in the blood circuit. In other words, digitalis increases the vigor of the heart, and at the same time increases its work. If in a given case the heart's power is increased more than its work is increased, then there may be a temporary gain, but this advantage is not always secured. It is most profitable to note the difference between the effects of water and those of alcohol and digitalis. Alcohol diminishes the work, but also the working power. Digitalis increases the

working power, but at the same time increased the work. *Cold increases the working power, while diminishing the work.* Moreover, alcohol and digitalis, both being toxic substances, add to the toxemia which is often a cause of cardiac inefficiency, while, on the contrary, hydric applications aid in the removal of the disturbing poisons. No condition requiring the use of a heart tonic or stimulant can be named in which a hydriatic application of some sort will not answer the indication far more efficiently than any drug known to the pharmacopeia.—*Kellogg, Hydrotherapy, Page 205.*

Where we wish to control inflammatory action, the proper use of a cold compress or an ice pack will prove an ideal treatment; but if the process has gone far enough to cause much edema with extensive infiltration of the tissues, or if pus has already begun to form, cold may be just what we do not want. It would only prolong the inevitable crisis, delay the formation of the circumscribing pus wall, and prolong the danger of septic poisoning. Hot applications in such cases would be clearly indicated.

In beginning appendicitis the scientific use of the cold compress will often abort the inflammatory process and deprive the attending surgeon of the honor of saving the patient's life by a skillful appendectomy. The author has used it many times and knows of no conservative treatment that will at all compare with it.

In the treatment of gastric disorders, whether hyperchlorhydria, gastric ulcer, gastritis, myasthenia or neurasthenia, many cases of which are complicated with subnormal activity of the liver with diminished peristalsis—that group of cases in which a large proportion are so disappointing by the use of drugs—it is here that hydrotherapy meets the indications in a physiological manner.

A warm compress will relieve the pain and irritability of a gastric ulcer, and at the same time lessen the aggravating peristalsis, while the cold douche will increase the peristalsis in the myasthenic and neurasthenic cases and raise the tone of every organ of the digestive system. Used half an hour before meals in cases of hypopepsia the cold douche greatly stimulates the gastric secretions, while in hyperchlorhydria a warm application half an hour before meals will lessen the secretion of hydrochloric acid. In the treatment of gastric disorders the writer has made use of hydriatic methods for fifteen years, with most gratifying results.

In the control of the menstrual function hydriatic methods offer to the gynecologist almost a specific. It has long been known that a cold compress to the lower abdomen will lessen the blood supply of the uterus and lessen the flow; and that a hot application to the same area will increase the flow. Later experiments have shown that a continued cold compress to the lower dorsal and lumbar area will dilate the uterine vessels, while long hot applications to the dorsal and lumbar region will contract them. A cold lumbar douche with 25-30 pounds pressure for 2-4 seconds will dilate the uterine vessels, while a cold douche at 15 pounds pressure for 30 seconds will contract them.—*Kellogg.*

Very short applications of cold to the breasts, lower abdomen, inner surface of thighs or the feet, will increase the blood supply to the pelvic organs, while prolonged cold applications to these reflex areas will greatly lessen the pelvic blood supply. In establishing the delayed menstrual function, and in the treatment of almost every form of menstrual disorder, these truths are of immense significance. By their scientific use the menstrual flow may be increased or decreased at will, hemorrhage may be arrested, inflammation controlled, not to mention the relief of the pain, and the control of nervous symptoms, all of which are amenable to those same physiological rational processes. The practical application which has recently been made of these truths by gynecologists in the cure of otherwise intractable cases has awakened a great interest in the further study of this subject.

Bearing in mind that the primary effect of cold on the circulation is the same as the secondary effect of heat, we may, by alternately applying both the heat and cold, intensify both the primary and secondary effects of each.

By continuing these reaction effects of hot and cold for a time a condition of tonic reaction becomes permanent, and we do not hesitate to say that the modern therapeutist has no greater resource for raising the vital tone of the body, as a whole, than is found in the alternate use of heat and cold.

By the scientific use of heat and cold the heart is strengthened, the capillary circulation quickened, tissue metabolism is increased, muscular tone is raised, respiration is deepened, elimination is made more rapid, the blood count is increased —both red and white—(*Winternitz*); the nerve centers are energized, peristalsis is more regular and vigorous, (*Kellogg*), and every vital process manifests a higher tone, so that the defenses of the body against all forms of disease are greatly increased.

It is time our medical colleges awakened up along the line of physiological therapeutics. There should be a chair of hydrotherapeutics in every medical school, every hospital should bring to its aid these potent resources, and every student should be thoroughly taught the scientific principles, and be made familiar with the practical technique of hydriatic procedures; which, instead of being adapted to the use of charlatans and empirics, is that department of medical science where empiricism should find no quarter; a field in which the broadest knowledge is demanded, the shrewdest observation of every physiological process is required, and a field in which the most brilliant results may be achieved.

HYDROTHERAPY IN TYPHOID FEVER.*

By FRANK L. ADAMS, A B., M. D.

Professor of Clinical Surgery, Oakland College of Medicine and Surgery.

DERIVATION—The word hydrotherapy is derived from the Greek ὕδωρ, water, and θεραπεία, medical treatment, or θεραπένω, I heal.

Definition—Foster defines hydrotherapy as "the systematic use of water as a curative agent." Baruch again defines it as "the method of applying water in disease." It has been the mistake of many physicians to restrict this term to the application of cold water, but in the words of Baruch, "Hydrotherapy includes the application of water in any form from the solid and fluid to vapor; from ice to steam; internally and externally."

History—The use of water in the treatment of disease and of fevers is as old as the history of man; but the scientific use of water externally was first proposed in 1786 by James Currie of Liverpool, who used it in all forms of continued fever. Currie also employed a self-registering thermometer and preferred salt water on account of the stimulating effect of sea salt on the vessels of the skin. In the first five days of the fever he used water at a temperature of 40° to 50° F., saturated with sea salt. In feeble cases he used water without salt at a temperature of 15° to 20° F. below the normal temperature. In 1805 over 800 cases of typhus fever, during an epidemic among the French prisoners at Stapleton, were treated by this method, with a mortality of only 5 per cent, which results were as good as those obtained in more recent years. In 1861 Ernest Brand of Stettin became an enthusiastic advocate of the cold bath in typhoid fever, and this method has been followed from that time to the present writing with a success which has excelled that of any other method of treatment.

MODIFICATIONS OF THE BRAND BATH.

Many modifications of the Brand cold bath have been suggested and employed by various writers and clinicians, such as the graduated bath of Von Ziemssen; the continuous tepid baths of Riess; ablutions and moist compresses; the cold pack; the ice pack; frequent spongings with vinegar and water or alcohol and water; sprinkling or showering with cold water, and the use of gauze over the entire body, kept wet with water at the temperature of the room. As adjuncts to the bath the Leiter coils or the ice bag may be applied to the head, chest or abdomen. Ice-water enemata have been tried, and they will often cause a reduction of 2° or 3° in the axillary temperature. Large draughts of cold water are of value, and will be an aid in causing a fall of temperature. Hypodermatoclysis has also been used to advantage as a restorative and stimulant, and as a diluent of the toxins of typhoid. All of these methods may be employed with advantage in individual cases, but the fact still remains that Brand's method so far has been followed by the best results and the modifications of his treatment cannot show the immense number of cases treated and the same percentage of recoveries as are obtained by the strict Brand bath. It is often the case that the very men who have opposed this method, and have disputed its success, are those who have either wilfully or ignorantly followed his method imperfectly, or have offered substitutes which have not stood the test of general practice or clinical experience. There seems to be a consensus of opinion among the best medical writers and clinicians of the present time that the cold bath is the safest, best and most successful mode of treatment that we have in typhoid fever, and that this method should be *strictly* followed if we wish to obtain the same good results that hundreds of observers have recorded in both private and hospital practice.

It is now a fitting time to consider the statistics of typhoid fever, and the various methods of treatment given in these statistics, and to draw our own conclusions from these figures, which are taken by Baruch from French, German, English and American hospital reports, and also from the records of private practice:

STATISTICS OF MORTALITIES IN TYPHOID FEVER.

	Per Cent.
First year after the Civil War, army statistics	49
N. Y. City Board of Health, 1876-1885, 7712 cases	41.28
In four years of Civil War, 74,000 cases treated on the expectant plan	35.6
From 1849 to 1866, French army	32. 2
From 1849 to 1866, Italian army	28.6
From 1849 to 1866, Austrian army	27.4
From 1849 to 1866, Second Prussian Army Corps, Official Records, 1970 cases	26.3
Tripier, Lyons hospital, 1866-1877, 229 cases expectant	26.2
From 1849 to 1866, English army	23.8
Vienna, 17,000 cases	22.5
Delafield Reports, 10 years of expectant treatment among 1305 cases in various New York hospitals	20 to 30
Brand, various sources, expectant, 11,124 cases	21.7
Vogl, Munich Military Hospital, 1841 to 1878, all kinds, chiefly expectant, 5484 cases	20.7
Pennsylvania hospitals in 20 years	19.5
New York hospital, 1877 to 1899, 501 cases	19.4
Jaccoud collected over 80,000 cases, treated on expectant plan	19.23
Nearly 14,000 London hospital cases	17.8
Murchison reports 27,000 cases, expectant	17.45
Tripier, Lyons hospital, 1873-1881, expectant and bathing, 629	16.5
Presbyterian hospital, N. Y., 1882 to 1890, 250 cases	16.1
Hare, Brisbane hospital, 1882-1887, 1828 expectant, quinine and cold wet sheet	14.82
Wilson German hospital, Phila., expectant and some baths, 271	13.29

* Read before the Medical Society of the State of California, at the annual meeting, held in San Francisco, April 14 to 17, 1902.

Vogl, Munich Military Hospital, 1868-1881, expectant and baths, 2841 cases	12.2
Ziemissen, Tubingen clinic, graduated baths and antipyretics, 2000 cases	9.6
Riess, Berlin hospital, permanent tepid baths, 1000 cases	8.5
Vogl, Munich Military Hospital, 1893, baths of 59°, 426 cases	8.4
Hare, Brisbane hospital, 1875-1881, cold baths and some antipyretics, 1173	7.84
Brand reports 19,000 cases of cold baths of all kinds	7.8
J. C. Wilson, German hospital, Phila., strict cold baths, 408 cases	7.8
Vogl, Munich Military Hospital, 1877 to 1887, strict cold baths and antipyretics, 702 cases	7.6
Hare, Brisbane hospital, 1887 to 1896, strict Brand, 1902 cases	7.05
Naunyn, Konigsberg clinic, strict cold baths, 145 cases	6.9
Murtra, Australia, strict cold baths, 173 cases	5.4
Sihler, private practice, strict cold baths, 80 cases	5.00
Tuttle, New York hospital, 1893, strict cold baths, 766 cases	5.00
Vogl, Munich Military Hospital (2d division) 1882-1887, more strict baths and less antipyretics	4.1
Brand, 5573 cases from various German and French sources, more thoroughly and systematically treated	3.9
Vogl, Munich Military Hospital, 1882-1887, strict cold baths, 141 cases	3.5
Bouberet, Lyons Red Cross Hospital, 1891, strict cold baths, 100 cases	3.0
Vogl, Munich Military Hospital (1st division), 1880, strict cold baths, 428 cases	2.7
Brand, various sources, strict cold baths, 2198 cases	1.7
Brand, Vogl, Jurgenson and others, 1223 cases, baths	1.00
J. C. Wilson, German hospital, Philadelphia, 94 cases	.94
Brand reports 2150 cases treated before the 5th day	.00
Borning, private practice, strict cold baths, 61 cases	.00
Barker, private practice, strict cold baths, 35 cases	.00
Baruch, private practice, strict cold baths, 32 cases	.00

It has been said with some justice that you can prove anything by figures. By perusing this table, however, I think we can come to some definite and just conclusions which may be a guide to the estimation of the value of hydrotherapy in the treatment of typhoid. For example, Hare reports 1828 cases in the Brisbane Hospital, treated from 1882 to 1887 by the expectant methods, quinine and cold wet sheet with a mortality of 14.82 per cent. In the same hospital 1173 cases were treated with cold baths and some antipyretics, 1875-1881, with a mortality of 7.84 per cent. In the same hospital, 1887 to 1896, strict baths according to Brand, 1902 cases mortality, 7.05 per cent. Hare after giving these figures recommends this method as the best yet given for the treatment and cure of this dread disease.

The official records of the Second Prussian Army Corps showed the mortality from 1849 to 1866 in 1970 cases to be 26.3 per cent, which was reduced by a strict cold bath treatment among 2714 cases to 4.3 per cent. During this same period the mortality in the French army was 32.2 per cent; in the Italian army 28.6 per cent; in the Austrian, 27.4 per cent, and in the English 23.8 per cent. It is only fair to conclude that correspondingly good results would have been obtained in the English, French, Austrian and Italian hospitals as Brand obtained in the Prussian service. Six times as many lives were saved by the cold baths as were saved under the old methods of treatment.

Again, the reports of the Lyons Hospital show expectant treatment, giving a mortality of 26.2 per cent; expectant treatment and bathing, a mortality of 16.5 per cent, while strict baths in severe cases showed a mortality of only 6.9 per cent. Wilson of the German Hospital, Philadelphia, reports expectant treatment and some baths, followed by a mortality of 13.29 per cent, while the treatment by strict cold baths showed a mortality of only 7.8 per cent.

Dr. Osler gives the statistics for six years, ending May, 1895: Cases admitted before the introduction of hydrotherapy, 33; mortality, 24.2 per cent. Cases admitted since the introduction of hydrotherapy, 356; mortality, 6.6 per cent. He also concludes that for this fever and its concomitants there is no treatment so efficacious as that by cold water, and follows in his clinic a rigid system of cold baths.

Sir Wm. Broadbent believes that the systematic use of the bath has considerably reduced the mortality of typhoid fever. Dr. James Tyson writes as follows:

> I have been so satisfied from my personal experience with this method—that it is without doubt greatly superior to any other in the results attained by it—that I feel impelled to do what I can to extend its use.

Dr. Delafield pronounces the tubbing treatment as the best we now have. Strumpell says:

> There is at present no other single method of treating typhoid fever which has so numerous and evident advantages for the patient. To carry it out in private practice may often be more difficult than in a well appointed hospital. However, even in private houses it will generally be possible to manage it, and we regard it as the duty of every physician who undertakes to treat a severe case of typhoid to try his best to have the baths employed.

Anders says:

> There is at the present day general agreement among medical authors that the best mode of treating typhoid fever is by means of the *cold bath.*

The results reported by Wilson, Borning, Barker and Baruch in private practice are certainly sufficient answer to those who say it may be well enough in large hospitals, but it is impractical or impossible in the houses of the poor.

Dr. Carl Sihler of Cleveland, Ohio, who has

followed this method extensively in his private practice and among the laboring classes, speaks highly of the treatment and says:

With this method a powerful means for good is placed in the hands of the physician, and I would no more think of placing any one dear to me personally, suffering from typhoid fever, into the hands of a physician who does not act according to the principles of Brand, than one who had to undergo an operation into the hands of a surgeon who does not act according to the principles of Lister.

Dr. A. B. Ball, professor of clinical medicine in the College of Physicians and Surgeons, New York, has been convinced that there is no other method at command which is so valuable.

Dr. W. Gilman Thompson describes his own experience while being treated by the Brand method for typhoid:

It is not agreeable at any time to be taken out of a warm bed and suddenly immersed in cold water, but the after-effect was so soothing, and the favorable influence upon all the symptoms was so pronounced, that the temporary discomfort was easily endured.

Professor Gerhardt, of the University of Berlin, claims that the Brand method has reduced the mortality of typhoid to one-quarter of its former rate.

There are four conditions in typhoid fever which endanger life: 1, (H. C. Wood) The bacterial toxins or typho-toxins produced by the typhoid bacillus; 2, The local action or ulceration produced by the bacteria; 3, (H. C. Wood) The fever or elevated temperature; 4, (H. C. Wood) The starvation or underfeeding.

Liebermeister taught that the high temperature itself was followed by severe complications which endangered life, such as stupor, degeneration of the heart and kidneys, and trophic disturbances. Von Ziemssen, however, held that these conditions were produced by infection rather than by the temperature. Dr. A. L. Loomis believes that the heart failure is due as much to the impairment of the nervous supply as to degeneration of the heart muscle.

Dr. Wesley Carpenter, in making many autopsies, did not find degeneration of cardiac structure so common as is generally believed. It is a fallacy that high temperature is the chief cause of the high mortality in typhoid fever. The failure of the heart may be caused in part by the temperature, but there are other and more potent factors. Infection or intoxication, due to sepsis or the typhotoxins caused by the bacillus, diminish perspiration, the activity of the kidneys, the peristaltic action of the intestines, and affect all the nerve centers. The cold bath acts as a direct stimulus to the nerve centers controlling the circulation in the arteries, veins and lymphatics; digestion, nutrition, secretion and excretion are thus directly affected and improved.

THE COLD FULL BATH.

Brand of Stettin was the originator of this, which is the ideal bath in typhoid fever. His directions are simple and his method most successful. It has been tried in every country and all climates, and as yet no other single method of procedure has been so extensively used as his. Over one hundred thousand cases in the totality show a percentage of recoveries at the very least double that of any other method. The portable bath is the best and most convenient. It should be of sufficient size to allow the complete submersion of the patient, so that the water touches the lower part of the chin. The buttocks rest upon a water cushion ring and the head rests upon an air cushion or may be supported by the nurse. Water from 90° F. to 65° F. may be used, but in a strict Brand bath the water is at a temperature of 65° to 70° F.

TECHNIQUE OF THE BATH.

The patient is given a stimulant, either whisky and water or a cup of hot broth, and then stripped. The face is quickly sponged in ice water and the patient is then gently lifted by two assistants and lowered into the tub; under no circumstances is it permissible for the patient to walk to or from the bath. Every part of the body, except the abdomen, should now be vigorously chafed and rubbed. Rubbing along the spine and the back of the neck will often relieve the feeling of cold and shivering, while chafing the legs will either prevent cramps and pains or greatly relieve them. If there be a decided chattering of the teeth or cyanosis of the face, the bath should be discontinued at once. Several times during the bath water at a temperature of 50° F. is poured over the patient's head. By wrapping a towel around the head we may prevent the water passing over the face and add greatly to his comfort. After the patient has been in the bath 10 to 15 minutes he is removed to his bed, which has been prepared in the following manner:

A double blanket is placed upon the bed and over a pillow, which is covered with a double thickness of crash toweling; over the blanket is spread a sheet, preferably of linen on account of its better powers of absorbing moisture, and at the foot of the bed several hot water bottles are placed. The patient is lifted into his proper place and wrapped with the sheet in such a manner that the arms and legs do not come to contact with wet surfaces. The blanket is then thoroughly wrapped over the entire body and if the rectal temperature has been 103 or over he is allowed to rest 5 or 10 minutes; if not, he is immediately rubbed dry and warmly covered. It is now often advisable to give hot whisky or hot broth. If shivering is prolonged and reaction slow in coming on, it indicates that the temperature of the bath is too low or that the bath has been used for too long a period. Careful notes should be taken and the next bath regulated ac-

cordingly. Brand advises the bath when the rectal temperature is 102.5 and its repetition every three or four hours when necessary. The rectal temperature is taken one-half hour after the bath is finished and again in one-half hour, when it is often found that there has been a fall of two or three degrees. When in severe cases the fall is only one degree, it is advisable to prolong the bath to 20 minutes or reduce the temperature of the water. In light cases it may not be necessary to give the bath more frequently than every four or six hours. It is advisable to permit the patient to sleep during the night for six or eight hours when possible. High temperature is not of itself the gravest symptom of typhoid, as we all have observed cases in which the temperature remains high and yet in other respects the fever pursues a mild course. However, when the temperature remains high for a long time, or when it suddenly becomes very high, it is necessary to take active measures to reduce it.

Strumpell says, "The early appearance of stupor and delirium in a given case means that for that patient the fever is high and should be treated." The rapidity of emaciation, the respiration, the pulse and condition of the heart and the nervous symptoms may be more important guides than the temperature in the treatment of a given case.

OBJECTIONS TO THE BATH.

(1) The labor and expense. These are decided objections, but the good results obtained in the houses of the laboring classes by many practitioners, and that, too, by the help of untrained and ignorant assistants, should be sufficient answer to such objections. In surgery and in the serum treatment of diphtheria expense and labor have never, for one moment, been spared, and the results have certainly more than compensated all those who have followed the best methods of treatment.

(2) Conservatism. Conservatism on the part of the profession may be a great good, but this should not stand in the way of progress, and should not oppose prejudice to statistics gathered from every source and the consensus of opinion of the best medical writers and authorities of the present time.

(3) Opposition of the public. The opposition of the public, of the patient and his friends may be obstacles insurmountable; but it is our duty to overcome those obstacles, if possible, and to educate our patients to follow the advice of their physicians and the medical profession rather than that of the public, which is ignorant and incompetent to judge concerning matters medical and surgical.

(4) The harshness and cruelty of the bath is urged by many who do not believe or only weakly believe in its efficacy. In such cases we may begin with the warm bath and gradually accustom the patient to the method, and in a short time he himself will be convinced of its value. This is only a matter of sentiment, and should not stand in the way of the patient's recovery.

(5) The drug antipyretic method has had a large following who believe that the main object of the bath was to reduce temperature; this, however, is only one of the objects of the bath and often the least important. These physicians have honestly believed that they had a more simple, convenient and reliable agent in antipyretic drugs; but as we all know this treatment is not now accepted by our leading writers, and the statistics so far collected do not bear them out in their position.

(6) Another class of physicians opposed to the bath are those who follow the methods of Brand imperfectly and half-heartedly, or have resorted to packing, sponging, sprinkling and ice packs. They have often failed, and in this manner have become opposed to the method as unreliable and unsatisfactory.

(7) The physicians of the expectant school, who do not believe that any system of treatment will modify the course and mortality of typhoid fever, and rely upon nursing and the treatment of symptoms as they appear. To such we can only say that the method has been tried on thousands of cases and that overwhelming statistics are opposed to them and their theory.

(8) The antiseptic method of treatment seems to many to be logical and scientific, but this method alone cannot stand in opposition to the bath treatment. It may be used in addition to the baths and such other drugs as the physician deems necessary in the treatment of the individual case.

(9) A limited experience in the use of the bath should not, at the present time, oppose us to this method. We know that we must rely upon the experience founded upon thousands of cases rather than the observation extended over a limited field. The results obtained in large hospitals and in the experiences of many observers is the only safe guide for any plan of treatment.

(10) The difficulty or impossibility of treating cases before the fifth day. While Brand lays great stress on beginning the treatment early, still he and his followers believe in its use at all stages of the fever.

(11) Shock. It has been urged that the shock from the cold water is too severe and dangerous; but this is one of the chief advantages of the bath, as it stimulates the heart and improves the circulation and acts upon all the vital centers.

(12) Danger of colds and lung troubles. Vogl says "The fear of cold from the baths or cold air in typhoid fever is unfounded." One of the main objects of the bath is to overcome the

tendency to congestion of the lungs and its attendant pulmonary complications.

(13) Complications. It has been stated that the cold bath by chilling the surface and congesting the internal organs has a tendency to increase the number of cases of intestinal hemorrhage. Extensive statistics prove just the contrary. "The diminution of the intestinal symptoms is a very evident effect of the cold bath: a few trials will convince any one of its success." (Vogl.)

(14) It has been charged that more cases relapse after this method. I cannot find any statistics bearing upon this point. Baruch observes that this is probably true, as there are so many more survivors to relapse.

(15) Baths do not shorten the duration of the fever. This is no doubt correct, but they certainly greatly modify the temperature, tympanitis, tremor, wasting and other complications, and greatly diminish the percentage of mortality.

BENEFICIAL EFFECTS OF THE BATH.

(1) The blood is cooled at the surface by the direct absorption of heat and the cooled blood acts as a tonic on the heart, thus improving circulation, and the cooling of the brain induces sleep. (Anders and Von Z.) The reduction of the temperature, usually more noticeable after one or two days' treatment, overcomes the ill-effects of high temperature.

(2) It improves the general nervous symptoms, such as delirium, stupor, and mental dullness, muscular twitchings and tremors, and causes sleep. This condition is brought about by the shock of the cold, and the constant rubbing acting upon all the nerve centers and the general nervous system. Even when the temperature is only slightly reduced a marked improvement in all these nerve manifestations is often noted, showing that the reduction of temperature is not the most important result of the bath. (Osler, Thompson and Baruch.)

(3) It strengthens the action of the heart by direct stimulation of the heart nerve centers and by the improvement of the peripheral circulation. It thus diminishes the dangers of a sudden collapse of the circulation, due to cardiac weakness, and in this manner prevents hypostatic congestion of the lungs and venous thrombosis. (Anders.)

(4) Through improved enervation and circulation all the digestive functions are improved. The tongue becomes moist and clean, and the flow of saliva and gastric juice is increased; the appetite and digestion are improved, the tympanites diminishes, the stools become more natural and the wasting of all tissues decidedly diminished. (Wilson, Anders, Baruch.)

(5) It improves the respiration and increases the depth and length of the inspiration. The tendency to severe bronchitis, pneumonia and hypostatic congestion is greatly diminished. (Anders, Thompson and Osler.)

(6) The renal action is improved; the flow of urine increased and the excretion of urea stimulated, thus eliminating the toxins of the fever and decreasing the danger of albuminuria and general intoxication. (Anders, Brand, Vogl and Tyson.)

(7) On account of improved cleanliness and improved circulation bed sores are seldom seen.

(8) When the bath is used in the first week it greatly modifies the course of the fever and renders it free from many of the graver complications, and greatly diminishes the mortality.

(9) Rorighi, Winternitz and Thayer claim, after much investigation, that hydriatic applications have a direct action upon the blood, increasing the red blood cells, leukocytes and hemoglobin.

(10) The functions of the skin are most important: First, as an organ of sense having direct communication between the outside world and the central nervous system; second, an organ of excretion. Water, carbonic acid gas, urea and other waste products are thrown off by the skin; bacteria in certain septic conditions have also been found in the perspiration. The skin is one of the most important aids to the kidneys and free diaphoresis is a common method of eliminating poisons; third, as a heat regulator. The skin is of the greatest importance and in fact indispensable in maintaining the bodily temperature at its normal point. All these vital and essential functions of the skin are stimulated and increased by the cold bath. Free diaphoresis is one of the most important effects of the bath, and by it the bodily temperature is reduced and waste products caused by the high temperature are eliminated.

W. Gilman Thompson, and in fact all the advocates of the bath, lays great stress upon the mechanical stimulation of the skin during the bath. They claim that it acts as a direct stimulant on the nerve centers and the vaso-dilator nerves of the periphery. In this manner the circulation of the blood in the skin itself is greatly enhanced and a greater amount of blood comes to the surface and is directly cooled by the contact of the water reducing the temperature. It diminishes the shivering and discomfort while in the bath and relieves the cramps and pains in the legs. The first action of the bath is to cool the surface and contract the peripheral blood vessels so that the pulse becomes almost imperceptible; this should not alarm the physician or attendants. There is now an increase of the blood pressure and the internal organs are filled with blood. The peripheral blood vessels next relax and the high blood pressure remains unchanged.

The heart acts more slowly and more vigorously, and all the blood vessels recover their elasticity and the tendency to a dicrotic pulse is decreased.

CONDITIONS WHICH DO NOT CONTRA-INDICATE THE BATH.

(1) Menstruation, pregnancy and the puerpural condition do not contra-indicate the bath. Many have employed the bath with great benefit in such cases.

(2) Erysipelas and bed sores, unless there be extensive involvement of tissue which requires antiseptic dressings, need not cause us to discontinue the baths. Bed sores are often benefited by the local cleanliness and the improved circulation of the skin. In fact acute decubitus is rare when bathing has been employed in the beginning of typhoid.

(3) Nephritis—Brand, Vogl and Tyson reccommend the bath in nephritis and believe that in this condition it is especially indicated, as the bath increases the secretion of urine and the excretion of urea.

(4) Free perspiration and cramps in the legs do not forbid the bath. The pains are usually relieved and often prevented by vigorous rubbing.

(5) Severe cough and attacks of dyspnea may appear in the first shock of the bath, but they usually disappear in a short time. Cyanosis and syncope are evident contra-indications. Here the pack or the graduated bath may be employed with advantage. The cough produced by the cold bath is frequently a favorable symptom, as it is caused by a stimulation of the respiratory center and a restoration to the normal of the respiratory sensation in the bronchial mucous membranes, causing a clearing of the passages of mucous and a stimulation of the pulmonary circulation.

(6) Late cases where there is great prostration and weakness do not forbid the bath, but it should be moderated to suit the condition of the patient. This is the opinion held by Brand and his followers, but, as has been noted later, many writers directly oppose immersion when such conditions are present.

CONTRA-INDICATIONS OF THE BATH.

(1) Severe Hemorrhage—A small amount of blood is not a contra-indication of the bath, but in severe hemorrhage, with coldness, pallor and feeble pulse, such treatment should at once be discontinued. Tympanites, tenderness and bloody stools are much less common in this treatment than in other methods.

(2) The aged and enfeebled and the very young often bear the baths badly, and here some modification of the cold bath should be advised.

(3) Extreme cardiac weakness—In this condition the bath may prove fatal, as Anders has reported.

(4) Peritonitis, which excites suspicion of perforation, is an indication that the patient should be kept as quiet as possible,, and here the bath is ill-advised and should not be given.

(5) Patients that have advanced in the third week of the fever, and who are greatly reduced, should not be immersed. Under such circumstances dangerous and even fatal collapse have been observed.

(6) Perforation requires absolute rest or immediate surgical treatment, and the baths must be withheld at once.

(7) Severe pneumonia or pleurisy frequently contra-indicate the bath. But in both these conditions where there is stupor, delirium, trembling and rapid emaciation, indicating severe toxin poisoning, the bath has been used with great benefit. Where the physician is in doubt, it may be advisable to use the warm bath or sponging with cooling lotions.

(8) In certain very nervous patients, where there is great dread of the bath, some milder method must often be resorted to.

(9) Tripier and Bouveret report five cases where the bath had to be withdrawn on account of severe coughing and dyspnea.

CALIFORNIA METHODS OF TREATMENT.

A circular letter was addressed to prominent medical men in various parts of the State in order to learn their methods of treatment, their views in regard to antipyretics, intestinal antiseptics, hydrotherapy and the Brand baths. Many objected to the method of Brand and their reasons were given in their replies:

The Best Method of Treatment of Typhoid—Hydrotherapy and Intestinal Antiseptics:

	Per Cent.
Employed by	54.05
Hydrotherapy (alone)	17.55
Brand (alone)	10.82
Brand and Woodbridge	6.76
Brand and intestinal antiseptics	5.41
Hydrotherapy and Woodbridge	5.41
Brand's method approved by	60.81
Brand's method not used or approved by	39.19
Various objections offered to Brand's method by	54.05
No objections	32.43
No opinion expressed	13.52
Drug antipyretics condemned by	81.08
Various antipyretics such as quinine, acetanilid, phenacetin and guiacol externally used by	18.92
Intestinal antiseptics, calomel principally, used by	78.38
Condemned	18.92
Used occasionally or with indifference	2.70

Water is used in some form internally and externally in all cases, and hydrotherapy is thus approved to some degree by all those replying. Only one approved of the serum treatment. Good nursing, careful diet, fresh air and strict hygiene were considered by all of the greatest importance.

HYDROTHERAPY IN THE TREATMENT OF PNEUMONIA.*

By A. J. SANDERSON, M. D., San Francisco.

HYDROTHERAPY, in the treatment of chronic diseases and fevers, has been acknowledged to be a stable remedial measure, but its use in many acute diseases has not received the attention that it justly deserves. Its application in the treatment of pneumonia is in many respects quite unique. In no disease is it capable of producing more brilliant results. This may be explained because pneumonia is a disease that is usually well-defined, with a distinct clinical picture, and the effects of a course of treatment are accurately registered in respiration, pulse, and temperature.

In dealing with hydrotherapy in this disease, it is very essential that a course of treatment should be scientifically prescribed and carefully administered. The application requires exposures and manipulations, which, in the hands of an ignorant or careless nurse, are liable to give rise to complications; but when thoroughly and skilfully administered can be given without inconvenience to the patient, and with only good results. It is important that during a course of treatment the results should be carefully watched by the physician, or it should be in the hands of a nurse whom he knows to be fully competent. This will necessitate frequent visiting of the patient during the critical period of the disease, or the nurse must have had sufficient experience to understand when a change or discontinuance of a form of the treatment is indicated.

In general practice, one is often handicapped by not having appliances at hand for the administering of the proper treatment. This is best overcome by having the nurse possess the simple equipment, which need only be a few large flannel cloths, two hot water bags, three or four ice-bags. Cloths for compresses, and a woolen blanket, if needed, can always be found in the home. These, with plenty of hot and cold water, and a supply of ice, are all the appurtenances that are necessary.

No general prescription can be given for the treatment of pneumonia; each case must be studied by itself; and the treatment given as indicated, taking into consideration the general recuperative and resistive powers of the individual, as well as the existing disease. During the course of treatment, aside from sustaining the functions of the lungs and heart, there are three conditions to be combatted, viz., the extension of the inflammatory area, the engorgement of the lung tissue, and the accumulation of toxins. These indications are, to a great degree, met by diverting as much blood as possible to other parts of the body. If this can be accomplished, and the action of the skin and kidneys stimulated, much will be done to lessen the severity of the pneumonia and aid the crippled pulmonary functions.

If called to a case of pneumonia about the stage of the initial chill, and we have a strong, robust patient to deal with, it is best to give a full body pack. Augment the heat by placing hot-water bags outside the blankets about the extremities. Keep cool compress on the head, and if engorgment of the lung has already been sufficient to particularly depress respiration, keep a cold compress, or an ice compress, upon the chest while this treatment is being given. If possible, get the patient to perspire freely. The accomplishment of this will be greatly facilitated by having him drink a quantity of hot water. The favorable effects to be obtained are increased elimination of toxins, the diversion of the blood from the lungs to the extremities and the peripheral vessels. Following the pack, the patient should be placed, without exposure, into a warm bed, and local treatment to the chest continued.

If when called to the patient the pneumonia has reached a more advanced stage, or we have a feeble person to deal with, the effect of the above treatment can be largely obtained by giving a hot pack to each limb, with the hot-water bag to the spine; or, a less inconvenient method, with the patient lying on his back, and legs flexed at right angles, give a hot foot-bath beneath the bed covers, also with a hot bag to the spine. Such treatment can be continued twenty or thirty minutes, or until the desired effect is produced. When this treatment is properly administered, the patient should experience marked relief from the symptoms, and the respiration should become freer. Accompanying the above measures, begin the local treatment to the chest. This consists of cold applications, interrupted by the use of heat. In giving these, care should be taken not to expose the neck and shoulders. They should be covered by warm, dry flannel. Also have warm flannel with which to cover the chest. so as to exclude air while the compresses or applications are being renewed. Hot applications in the form of poultices or fomentations are commonly prescribed in our textbooks, but in the average case, cold applications will accomplish much more marked results. This has been successfully demonstrated by Dr. Mays, of Philadelphia, and others. When extreme cold is used, care should be exercised not to continue the applications too long, and they should be temporarily or permanently withheld when progressive improvement ceases.

I have found the most satisfactory results to come from the alternate hot and cold treatment. First thoroughly apply fomentations to the chest, changing as often as they become the least cooled,

* Read before the Medical Society of the State of California, at the annual meeting, held in San Francisco, April 14 to 17, 1902.

and continuing the application for twenty or twenty-five minutes. This should be followed by cold compress to the chest, which should remain during the interval between the fomentations, varying, according to the case, from one to three hours. If the temperature of the body is high, the compresses should be changed as fast as they become warm. If the pulmonary inflammation is especially active, it is well to apply ice compresses between the fomentations, in which case the latter may need to be repeated as often as every hour.

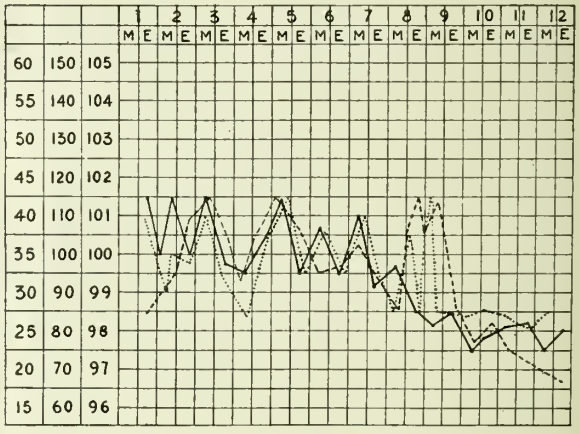
In some cases, and in some stages of the disease, the cold applications are not well borne, at which times it is my practice to cover the chest during the interval of hot applications with compresses of alcoholic solution of menthol. The cold applications are a good stimulant to the functions of the respiration, and the heart's action. I have seldom found it necessary to use any other means to stimulate these organs. They also have a marked effect in increasing local leukocytosis. This increase of oxygen by deeper respiration, and the increased number of leukocytes, are both powerful agents for combatting the disease.

For the reduction of the temperature, the use of alcohol rubs, cold sponges, cold mitten friction, with neutral and cold bowel irrigation, when thoroughly applied, will be found sufficient. Having the patient retain one or two pints of cool normal salt solution after the irrigation, for absorption, will have a favorable influence on the temperature, and by increasing the volume of the blood and stimulating the kidneys, will favorably affect the disease process. The severity, extent, and frequency of both the hot and cold treatments must be determined by the examination of each case, the general condition of the patient, and the clinical picture it presents. If the hot fomentations to the front of the chest are not sufficient to relieve the engorgment of the lung and the breathing, the effect can be augmented by the application of the hot bag, poultice, or another fomentation to the back of the chest, applied at the same time or alternately with it. I sometimes find it an advantage to have this application of heat to the back of the chest, while the cold or ice compress is being applied anteriorly. In the latter stage, to aid resolution, after the temperature has become normal, I use the rapidly alternating hot and cold application to the chest, cold mitten friction, and light massage as tonic measures to hasten the reparatory process.

During the treatment, the patient is kept on a mild liquid diet, and if the enemas are not sufficient to clear the bowels from any clogging that may have been present in the early stage of the disease, I give one or two doses of castor oil. Other than this, no medicine is used. With this routine of treatment we have never lost a case of primary pneumonia. A partial report of the following cases will give a clearer idea of the application of the treatment:

Miss F. A., aged ten, came home from school in the afternoon, taken with a severe chill, following which the temperature reached 105, with a pulse of 130, respiration 35. Physical signs were not well marked. The patient was given the initial treatment as above described. Within two days the characteristic physical signs of lobar pneumonia were well marked in lower lobes of both lungs. The pneumonia ran a characteristic course, passing the crisis of the disease in each lung separately, on the fifth and seventh days, at which time the high temperature, pulse and respiration dropped suddenly to nearly normal, the first time only remaining there a few hours, but after the second crisis they remained normal, and the child made a rapid recovery.

Mr. S. W., aged 73; patient feeble; pulse very irregular. Was called to the case February 3, 1900. Patient had been suffering, as he supposed, from a cold, for several days, and had taken treatment and cough medicine, of home prescription. Examination of the chest revealed bronchial pneumonia, affecting the right lung. The age and feebleness of the patient complicated the disease. The accompanying chart will give an idea of the results obtained by the



treatment. During the first two days no extreme cold was used, on account of the feebleness of the patient; but as no progress was made, the treatment was changed and thorough application of the hot and cold, using water at 35° F. was made every two hours. The marked improvement in respiration, pulse and temperature, are clearly indicated by the chart. After the second day, the application of the cold seemed to lose its control over the disease, and temperature and pulse returned, at which time we again applied poultice, giving hot and cold applications three times a day. Favorable results followed, and the temperature gradually returned to normal, and patient made good recovery. The rise in pulse and respiration on the eighth and ninth days was due to cough and free expectoration during resolution, which was indicative of the feeble condition of the patient. I report this case by chart because it is quite characteristic of a number of cases. The cold application when intelligently applied, will, in the average case, accomplish a great deal towards abating the symptoms, but one should guard against the applications being too frequent or too long continued, as they may, especially in the feeble patient, or one having

organic heart trouble, lose their tonic and antipyretic effect, and a period of depression with exaserbation of the symptoms may follow. But when this is watched closely, none of these deleterious effects need occur, and the good results obtained by the cold will become permanent.

The following case was simply acute congestion of the lungs, with extremely difficult respiration. Miss M. D. Was called to the case at 2 a. m., March 5, 1902. Found patient suffering with severe dyspnea, and incessant cough, and perspiring freely. Gave history of having suffered pain in left chest for some days. The evening before, the pain became intense, the cough developed, and shortness of breath extreme. Respiration, 30; pulse, 120; temperature, 102. Examination of the chest revealed coarse rales throughout both lungs, more marked on right side. At the bottom of the left lung there was impaired resonance on percussion, and partial obliteration of respirating murmur. The patient was given a hot foot-bath, with hot water to drink, thorough fomentations were applied over the chest, and hot bag to the spine. The cold applications were not well borne in this case, as they would immediately increase the oppressed breathing when applied. This may have been due to a very slight mitral murmur that was present. The hot applications were continued steadily for eight hours. At the end of that time the breathing was relieved and the cough checked. Menthol compresses were then applied, and the fomentations repeated every two hours. At the end of twenty-four hours the temperature was normal, the rales had largely cleared away, with the exception of the lower part of the left lung. This portion of the lung cleared entirely by the end of three days' treatment.

METHODS OF APPLYING ABOVE TREATMENT.

Full Body Pack—Spread comforter over the side of the bed, or preferably on cot beside the bed; spread blanket over this, and upon it unfold the blanket that has been wrung out of boiling water; as soon as the bare arm can be borne upon the blanket, have patient lie quickly in the center of it with arms close to the body; wrap one-half of blanket over body, then the other half; fold over the dry blanket that is underneath, also the comforter. The hot blanket should be of sufficient length to fold in well over the shoulders, and about the neck. Also wrap about the feet, so as to keep them warm, and exclude the air. The quicker the patient can be wrapped up so as to exclude the air, the less discomfort he will feel from the heat. Leave patient in the pack twenty or thirty minutes, or longer if favorable effects are produced. Should the patient not perspire, and the temperature have a tendency to rise, and the tendency to chill has ceased, sponge the body briskily with cold water before the patient is replaced in bed. In giving the sponge, expose only a small portion of the body at a time, and see that there is no tendency to chill.

Leg Pack—Have blanket wrung out of hot water the same as for the full pack. Then turn the bed clothing away from the extremities, spread dry blanket beneath them, and unfold the hot blanket upon it. Wrap first the hot blanket, then the dry one, about the limbs, and replace the bed clothing. Each leg may be wrapped separately with more comfort to the patient. The hot blanket should be wrung sufficiently dry so that it cannot drip and wet the bed.

Fomentations—Take large flannel cloth, preferably one-quarter of a single blanket; fold to a convenient shape for applying over the affected part; then dip in boiling water, leaving ends dry, so that by them the cloth can be wrung sufficiently dry that water cannot drip from it. Wrap this in another fomentation, leaving one thickness of dry cloth beneath the hot one, and apply to the affected part. Change every two or three minutes, or as often as the cloths lose their excessive heat.

Cold Compress—Take cotton or cheese cloth sufficiently large to fold into several thicknesses, and have an area that will cover one-half of the chest, extending from the apex to the base of lung, and from the sternum to the spine. Dip this in water at 60° F., drain sufficiently dry that it will not drip, and apply to the chest, covering with a dry flannel cloth, or preferably oiled silk. Change the compress every fifteen minutes, or as often as it becomes warm. In some cases better effects will be obtained by having the compress colder, being wrung out of water at 50°, 40° or even 32° F.

Ice Compress—Take four ice-bags filled with chipped ice, tie securely, and wrap in a Turkish towel, with the bags about three inches apart, and one or two thicknesses of towel beneath them. Apply to the affected part.

Cold Mitten Friction—Make mitten of Turkish cloth to fit the hand. Have the water as cold as can be borne well by the patient, and have a good reaction obtained by the friction; temperature will vary from 80° to 50° F. Dip hand, with mit applied, in water, and shake off the excess. Expose a small portion of the body; rub briskly with the cold mitten till some redness of skin appears and part feels warm. Keep surrounding clothing covered with Turkish towels so that dripping water will not dampen it. Dry with a Turkish towel. Cover the part, and repeat operation on other portions of the body.

Hot and Cold Applications—Use ordinary fomentations as above described, and about every half minute lift fomentation cloth and rub the chest for two or three seconds with a smooth piece of ice.

Bowel Irrigation for Reducing Temperature—Take water at 60° or 50° F. and put into it 30 grains sodium chloride to the pint. By rectal tube and fountain syringe inject one to three pints of this solution. If retained, leave in for twenty minutes, and then allow patient to pass the solution, and repeat the injection. Have the patient

retain the last solution, using a less quantity if necessary, so that it may become absorbed.

DISCUSSION.

Dr. Geo. L. Cole, Los Angeles—I feel much gratified by this paper. It is rather interesting at this time, when the profession is reaching out for new remedies, to have brought to our notice something which is easily applied, something which is not new, except the application, and something which has stood the test of time. I think that instead of devoting so much time to grasping new remedies, if we utilize this we will do better. For instance, so many new hypnotics have been placed before us; and I am sure that none of the hypnotics are equal to chloral hydrate. While there is no exception to be taken to anything that was said, there are one or two points that might be emphasized in regard to what the doctor said about the short and long application of cold and heat. In the short application of cold the reaction is quick, and is continued by the long application of the cold. What he said, furthermore, about the study of this subject, we should remember that here is something we are not as familiar with as we should be. He says the novice may think it is easy, but if he does not understand it he will not get the results.

If we do not understand the treatment we will not get the results we expect. The question of cold applications acting as a tonic cannot be better exemplified than in the Brandt treatment of typhoid fever. We have all seen, under this treatment, how the circulation is benefited, the temperature comes down, the days go by, and what was considered a critical case goes on to recovery. Many of our patients become disgusted with drugs; hence it is we have so much attention paid in these days to mental science, osteopathy, etc. The use of cold water, especially in the institutions where hydropathy is used, where the patient comes in contact with a room fitted up as in a sanatorium, where there are various methods of using it, as the bath, jet and spray, it has a psychic effect; and in many cases along the line of neurasthenia they are benefited, very much from the psychological effect, and it is proper for us to take account of this line of treatment and the effect. If I was to criticise any remark made, it was the suggestion that the authority let drop—I am not quite sure that I understood correctly, but I gained the impression—that if water was properly used we might do away with venesection. I can't believe this. The longer I practice medicine the more I am convinced that there are cases where venesection should be employed. If I have ever saved human life, I believe it was in two cases where I promptly drew 25 to 30 ounces of blood; and I believe in pneumonia, in strong plethoric persons, that in the beginning of the disease venesection will accomplish something that nothing else will. I believe also that there are cases of cardiac lesions in which if properly applied and promptly used at the proper time life may be saved, or the critical period tided over in these valvular lesions. I had one patient in whom I did this, and the patient had two years of good health, and I believe if the prompt venesection had not been used the patient would have died. In apoplectic attacks, or in some cases where the symptoms positively point to apoplexy, I do not think we can replace venesection by hydrotherapy.

Dr. H. N. Rucker of Merced—I would like to ask Dr. Hare one question for information. I would like to know if he has had any experience with it and would recommend a cold compress in surgical shock; for instance, would his idea be that the heart action would be increased by the cold? I ask this question because I have had some experience in applying very hot applications over the heart in extreme surgical shock, and where the pulse was not perceptible. I never used the cold, because I feared the effects would be disastrous, but I have seen good effects from the heat.

Dr. Hare—I am glad the gentleman asked the question referring to cold in shock. It is a question closely allied to the last reader as in pneumonia. The only effect we get from the cold is through the reaction or the reflex manifestations. When we apply cold to an area, we get reflex action from the cold immediately. That reflex action comes from the impression of the cold on the nerve centers in the skin. If we leave it on for a while, we get numbing of the skin. If Dr. Sanderson, who read the paper on pneumonia, continues the cold long enough to get numbing of the body, he will get just what we don't want in the surgical shock, a condition of partial numbing of sensibility. He took a cold compress for a short time and got bad results. We must get a reaction of sensibility. When we don't get the reaction, we aggravate it. If it is cold enough and for a short period, it will be all right. The doctor's suggestion to the use of heat is a good one, and we get good results from the short applications of heat, and then follow it by the cold. I wish this subject might be thought about and discussed oftener in the medical associations. The use of hydrotherapy is relegated by the ignorant, and I don't hesitate for a moment to be a defender of its scientific value. It has a basis that is well founded. I wish to call attention to another point in the use of hydrotherapy in typhoid fever. We are apt to make a mistake when the skin is cold; the blood supply to the skin is limited, and the internal organs are engorged. A heat application for ten seconds will bring the blood to the surface, and then we apply the cold and we get a better reaction. The use of friction has been suggested, and it is a most excellent feature, and is essential. We can't get the par excellence results without it. The friction should be extremely superficial and rapid. The heart brings the blood to the surface and then we can use the cold applications I called attention to another point, that is, cold not only reduces the fever, but it does more. It is the significant point of the treatment. The cold stimulates the vital processes of the body, and increases the alexins in the body. The heat increases the defenses and is an effort on the part of nature to do away with the toxins. I don't think we get the greatest results from the bath, as it does not control the nerve centers. I want to thank the Society for the kindness with which they received this report. Hydrotherapy should be studied from a more scientific standpoint in order to get the benefits. I want to say that I intended to suggest the idea that by the scientific use of heat and cold, blood letting may be avoided. Any part of the body may be depleted of blood by taking it to the skin, and promiscuous bloodletting may be obviated by the agency of heat and cold.

SPINAL ANESTHESIA WITH TROPA-COCAINE IN GENITO-URINARY SURGERY.*

By M. KROTOSZYNER, M. D., San Francisco.

AS early as 1885 in the first publication upon spinal anesthesia that appeared in medical literature, Corning (1) says: "Whether the method will ever find an application as a substi-

* Read before the Medical Society of the State of California, at the annual meeting, held in San Francisco, April 14 to 17, 1902.

tute for etherization in genito-urinary or other branches of surgery, further experience alone can show." Since August Bier's first experiment with spinal anesthesia he emphasized the fact that operations in the pelvis, perineum, and the anus are fitted for this mode of anesthetizing, as complete analgesia may be obtained for these regions through small and comparatively undangerous doses of the anesthetizing drugs.

My own experience with spinal anesthesia dates back about two years. At that time I witnessed several operations under spinal anesthesia by Dr. Tait, who, with Dr. Caglieri, wrote a remarkable treatise (2) upon the subject. I soon afterwards proceeded to experiment with spinal cocainization in some of my old prostatic patients, where a general anesthetic appeared to be dangerous on account of heart and kidney complications. My experience with the method was not very satisfactory on account of the very distressing and often dangerous symptoms which most of my patients exhibited during and after spinal cocainization, and at the last meeting of the California State Medical Society, held in Sacramento, I said, discussing Dr. A. W. Morton's (3) paper on spinal cocainization: "I have used this method * * * and have noticed such violent and distressing symptoms * * * that I would not wish to repeat this method of anesthetizing unless I am compelled to."

Such and similar objections to spinal cocainization are voiced by various authors. Mikulicz (4) for instance, reports among thirty-five cases of spinal cocainization, ten times distressing symptoms during and eight times after the operation. The horrible picture of intoxication so often observed after spinal cocainization is best described by Kammerer:

> Suddenly the patient becomes pale, the pulse becomes rapid and small; the patient yawns and makes deep and difficult inspirations until dyspnea sets in, pulse thready, not palpable; profuse perspiration, nausea and vomiting, spastic contractures of lower extremities; pulse-rate, that had increased to 140-160, sinks to 55-70; collapse at different periods. These symptoms may last a very few or even fifteen or twenty minutes.

I had, therefore, almost decided to abandon spinal anesthesia entirely when my attention was shortly afterwards called to an article of Willy Meyer of New York (6) who had operated on three cases under spinal anesthesia with tropa-cocaine, and at the same time Schwartz's (7) publication upon the use of tropa-cocaine in place of cocaine fell into my hands. Schwartz arrived, through carefully conducted experiments, at the result that 0.05 tropa-cocaine injected into the subarachnoid space produced as perfect an analgesia as the ordinary cocaine, while none of the disagreeable and dangerous symptoms experienced with the ordinary cocaine were noticeable.

Tait (e.c.), who had experimented with several other drugs in order to avoid the toxic influence of cocaine, began at the same time to use the tropa-cocaine and called my attention to its advantages over the cocaine, especially in its not being accompanied and followed by the above-mentioned distressing and dangerous symptoms. I had at that time under my care an extremely sensitive patient of 75 years, with a supra-pubic fistula of four years' standing as a result of supra-pubic lithotomy, from which the urine continually flowed down alongside the supra-pubic tube over the patient's thighs, causing a very annoying eczema. Rectal examination revealed a very large prostate, the middle lobe of which obstructed the entrance of the bladder. On account of the patient's advanced age and his faulty kidneys, an operation under local anesthesia in the hypersensitive patient seemed to be impracticable. I therefore decided to perform a Bottini operation under spinal anesthesia with tropa-cocaine. I injected 0.05 or 5-6 of a grain of tropa-cocaine and started five minutes after injecting to operate. In rapid succession I introduced steel sounds of increasing size in order to dilate the urethra, that had not been used for several years as a urinary channel; then I introduced the Bottini instrument and made three very extensive incisions to the three lobes respectively, leaving a catheter in the bladder afterwards. During the operation the patient was occupied in conversation with a friend, his pulse did not increase in rate nor deteriorate in volume, no nausea, no vomiting, respiration normal, not the least sign of pain during cauterization of the gland. The patient did not show any disagreeable after-effects from the anesthesia (no rise in temperature, no headache). I repeated in this patient twice the same method of anesthesia, the first time about six weeks after the first Bottini operation, in order to close the supra-pubic fistula, the second time, two months after the second operation, in order to perform a second Bottini operation for the re-establishment of the spontaneous micturition through the natural passages after closure of the supra-pubic fistula.

Such a result could never have been obtained without the aid of this method of anesthetizing, because I don't think the patient could have survived three general narcoses, neither would a careful surgeon have attempted these operative procedures on account of the dangers connected with general anesthesia in old and decrepit individuals.

Since this experience I have done almost all my genito-urinary surgery under spinal anesthesia with tropa-cocaine and can recommend it highly. I have operated so far in over 120 cases. Most of my work was done on the bladder, scrotum, penis, etc.

Tropa-cocaine is chemically benzol-pseudotro-

pin hydrochlorate, and has the formula $C_8 H_{14}$ No ($C_6 H_5$-CO) HCL. This alkoloid occurs with cocaine and other bases in the small Java Coca leaves, prepared hynthetically by Liebermann. It forms white needles, melting at 271° C., or 519.8° F., and is readily soluable in H_2O In solutions of 2 per cent to 5 per cent it produces a rapid anesthesia, is less toxic and more reliable than cocaine (Ferdinando and Chadbourne).

I have always used for my work the glass tubes as prepared by Dr. Tait. Each tube contains 1 cc. of a 4 per cent solution of tropa-cocaine, both ends of the tube are sealed, then placed in a bath of water and glycerine for one and one-quarter hours, at a temperature of 120° F. and cooled off. The glass is filed off at a convenient place so that it may be broken when the contents are needed for injection. I shall not describe here the instrumentarium and technique of lumbar puncture, as those points are repeatedly dwelt upon by various authors in former publications. I generally obtained complete analgesia for my field of operation by the above-mentioned dose of tropa-cocaine, and generally started the operation ten minutes after the injection. In some cases where I injected less than 1 cc. of the 4 per cent solution, or even only half the dose, I had to wait fifteen, twenty or twenty-five minutes until analgesia was obtained. In two cases of my whole material no analgesia occurred, and the operation had to be done under general anesthesia. In both instances the escaping of several drops of cerebro-spinal fluid made it sure that the point of the needle had punctured the subarachnoid space and in the case of a very nervous woman with visical spasms certain symptoms (slight icterus with rise of temperature until eight days after spinal puncture) were observed that I was inclined to ascribe to the lumbar puncture.

In nervous and excitable patients, occasionally, the operation was somewhat impeded by great restlessness of the patient, which sometimes could be arrested by placing a mask over the patient's face, simulating chloroform anesthesia. Whenever those patients, after the operation, were asked if they had felt any pain they invariably denied it. We never used of late a stimulant hyperdermatically or *per os* before or during the operation, as generally no shock or other distressing symptom caused by the puncture or the injected drug were noticeable. One assistant is placed at the head of the patient to carefully watch respiration, pulse, pupils, etc. A nurse is detailed in some instances to engage a nervous patient in pleasant conversation and to distract notes upon one interesting observation:

An important point that so far has not been brought out is that this method of anesthesia permits us to obtain the patient's consent for removal of an organ during the operation, where in general anesthesia a second operation would be necessary because the patient's consent for a more radical procedure could not be obtained. To illustrate this point I may be permitted to give brief notes upon one interesting observation.

A man of 33 consulted me for a subacute anterior urethritis (with gonococci) and epididimitis on the right side. Upon taking the history of the case I ascertained that the right testicle had been swollen for several months previous to the present attack of gonorrhea, which at that time lasted for about three weeks. As no benefit could be effected by ambulatory treatment, the patient was persuaded to enter the hospital, where, in spite of rest and careful treatment, the swelling of the right epididymis increased; a few days later an effusion into the tunica was noticeable, which rapidly increased; puncture was made for diagnostic purposes and 1 cc. of a sero-purulent fluid obtained, that contained pus cells, tubercle-bacilli, streptococci, but no gonococci. The operation under spinal anesthesia revealed an epididymis and testicle that were entirely riddled by tubercular abscesses, miliary tubercles covered the cord and surrounding tissues up to 4 or 5 cm. from the epididymis. I informed the patient of the condition of the organs mentioned and obtained permission for castration, which I did, following up the vas deferens to the internal inguinal ring.

I am certain from my experience that spinal anesthesia with tropa-cocaine will prove to be a useful and reliable method in our field of surgery, though I will admit that disagreeable symptoms will occasionally be noticeable from its use. Repeatedly in my cases a slight dyspnea was observed; the pulse-rate increased to 100, in two cases to 120; involuntary defecation occurred in three cases, and in the case of the above-mentioned woman, where no analgesia was effected, profuse vomiting followed the injection of the drug. But all those disagreeable sequels were the exception; as a rule the analgesia was complete and the operation could be finished without any interruption caused by the intra-spinal injection. The same favorable results were obtained as regards after-effects. I have never observed the excruciating headache so often noticeable after spinal cocainization, and I am inclined to believe with Bier (8) that neither the difference in pressure of the cerebro-spinal fluid nor circulatory disturbances, but the toxic effect of the cocaine is the real cause of this distressing symptom. In regard to increase of temperature as a sequel of spinal anesthesia with tropa-cocaine, I cannot express a decided opinion. In the few of my cases where it occurred I was not certain whether the condition of the wound was not the cause of this symptom.

The majority of my operations lasted less than an hour. Only in one case (an external urethrotomy with total obliteration of the urethral canal) we worked one hour and forty minutes with complete analgesia after injection of 0.05 tropa-cocaine.

The only real danger, to my mind, connected

with this method of anesthesia lies in the possibility of sepsis to the spinal canal. Therefore I would not attempt spinal anesthesia in a private dwelling. In the hospital I have the patients in whom spinal anesthesia is to be made prepared as for a laparotomy. The day before the operation the patient gets a full bath, his back is shaved and a sublimate-pad applied upon it. On the operating table the field of the puncture is sterilized as carefully as the site of an abdominal section.

I hope you will test this method unbiasedly in your genito-urinary surgical work, so that well established indications for this method of anesthetizing may be drawn from for future experience. My work teaches me that the method seems to be impracticable in very nervous and excitable patients. I can highly recommend it, though, for old and decrepit individuals where a weak heart or unreliable kidneys would contra-indicate a general anesthesia. I have not had a mishap in my spinal anesthesia with tropa-cocaine so far, and I consider this method not to be more dangerous than any other form of anesthetizing, while its advantages over general anesthesia for the patient are unquestionable.

REFERENCES.

1.—J. L. Corning: *New York Medical Journal*, Oct. 31, 1885.
2.—Dudley Tait and Guido Caglieri: Transactions of the Medical Society of the State of California, 1901—p. 266.
3.—A. W. Morton: Transactions of the Medical Society of the State of California, 1901—p. 228.
4.—I. V. Mikulicz: *Arch. f. Klin. Chir.*, Vol. LXIV, p. 757.
5.—F. Kammerer: *N. Y. Med. Monatsschr.*, 1901, p. 1.
6.—W. Meyer: *Med. News*, Vol. LXXVIII, p. 569.
7.—Karl Schwartz: *Centralbl. f. Chir.*, 1901, No. 1.
8.—Aug. Bier: *Arch. f. Klin. Chir.*, Vol. XLIV, p. 236.

ON PTOMAINE POISONING.*

By E. O. JELLINEK, M. D.

Visiting Physician to the German Hospital, San Francisco.

PTOMAINE poisoning, with exclusive or prevailing gastro-intestinal symptoms of lesser or greater severity, is not of rare occurrence in medical practice.

The symptoms are those of a more or less pronounced gastro-intestinal catarrh, with general feeling of malaise, epigastric pressure, regurgitation and vomiting of sour or bitter particles, and also diarrhea. In the medium and more severe cases the above symptoms are accompanied by secretory disturbances, characterized by dryness of the skin and mucous membranes.

In addition, we find nervous disturbances, which demonstrate themselves in different gradations of bulbar symptoms. These last-named cases are fortunately rare, and it is my purpose to present the differential diagnosis of these, based upon the material about to be given.

In a boarding-house of this city, seven persons became sick within nine days, three of whom died. The eating of tainted boiled beef on the 27th of November was given as the cause of the sickness. From two of the fatal cases, which were not under my care, I obtained the following histories:

Case 1. The patient became sick two days after eating the meat, with symptoms of general muscular weakness, dryness in the throat and difficulty in swallowing. Died after two days.

Case 2. The patient became sick four days after eating the meat, with symptoms of general prostration, dryness in the throat, difficulty in swallowing, diplopia, ptosis. Died in six days.

I had under my observation five cases, one of the patients dying, the other four recovering.

The history of these are briefly as follows: On the 6th of December Dr. H. and his wife visited me in my office.

Case 3. Dr. H. had complained for six days past of tiredness, dizziness, lack of appetite, pronounced weakness in the legs, causing inability to walk two blocks; of heaviness of the arms, of dryness of the mouth.

Case 4. Mrs. H. complained of practically the same symptoms, with the exception that the dryness in her throat was more pronounced and she had difficulty in swallowing; slight ptosis, and constipation.

Case 5. On the 8th I was called to see Mrs. C. She had felt ill for several days, remaining in bed, and at the time of my visit she still complained of general muscular weakness and lack of desire to get up; lack of appetite, constipation, scratching and dryness in the throat.

Case 6. Mr. T. called upon me on the 9th of December. He complained of general tiredness, great muscular weakness, making it difficult for him to walk; constipation, and had no desire to work. He had also, for several days previously, felt dryness in his throat; nausea and dizziness.

Case 7. On the night of the 10th of December I was called to the Homeopathic Sanitarium to examine Mr. G., who had become sick on the 3rd of December. He had been in the Sanitarium for five days with a diagnosis *in suspenso*. The history which I could obtain was as follows:

The patient became sick with symptoms of pronounced prostration, lack of appetite, dryness and scratching in the throat. He could open his eyes only with difficulty. He was constipated; no urinary disturbances, no headache. On the following day difficulty in swallowing was present, which increased to actual inability to swallow, accompanied by increasing dryness of the mouth and pharynx and great thirst. The voice became hoarse, breathing and pulse quickened. No food had been taken for five days, owing to difficulty in swallowing and coughing caused by particles of food lodging in the larynx.

Examination gave the following status: Well-built man of average height and musculature, with slight panniculus adiposus. No edema. The patient rested in a passive, half-sitting posi-

* Read before the San Francisco County Medical Society, January 13, 1903.

tion in bed; the head dropped over his right shoulder. The skin was pale and dry, expression of the face crestfallen. The eyes were closed, and the eyelids could be raised, with great effort, about one cm. Eye movements free; no diplopia; no disturbance of the facial or trigeminus nerves. The tongue could be voluntarily stretched out and moved in all directions, still the movements were retarded. The patient could whistle; there was no atrophy of the tongue or lips. The uvula was raised only slowly, the pharyngeal reflexes sluggish. The speech was low and hoarse, and distinctly nasal, often unintelligible. The principal complaints of the patient were the severe dryness of the throat and the inability to swallow. I gave the patient, with his head down, a teaspoonful of milk to swallow, but he began immediately to cough. The cough sounded weak. In his breathing I heard a tracheal gurgle, but no phlegm could be raised. By allowing the patient to hang his head out of the bed till it touched the floor, a slight amount of mucus was expectorated. The tongue and mucous membrane of the mouth were dry, with small ulcerations. Temperature 102, pulse ranged between 120 and 140. Breathing shallow—36 per minute. There was slight dullness at the base of the right lung, with small, moist rales. Sensorium undisturbed. As I was asked to take charge of the patient, I had him brought the next morning to the German Hospital.

The status taken on the 11th was practically the same. The prostration was even more pronounced, the patient not having slept, although one-fourth of a grain of morphine had been administered. In fact, since the beginning of his illness the patient had slept scarcely two hours.

The examination of the urine gave s. g., 1021; slightly acid; nucleo-albumin present; serum-albumin a trace; no casts. Dullness and rales increased in the right lung. Temperature, 101.6; pulse, 140.

Therapy: 500 cc. saline infusion hypodermatically; stomach lavage; 0.5 calomel by mouth; high irritations. (I did not care to risk venesection, owing to weak heart.)

Great care was taken to properly wash out the mouth, and food was introduced by stomach tube only.

On the 12th of December the patient, after being given hypodermatically one-fourth of a grain of morphine, slept four hours. He felt better and more hopeful. He could open his eyes a little wider. Swallowing was still nugatory, otherwise *status idem*. Therapy continued as before.

At four o'clock on the morning of the 13th the patient died suddenly.

The post-mortem was performed by Dr. Ophüls the same day at the Coroner's office. His report is as follows:

AUTOPSY.

Mr. Goodyear—Strongly built, very muscular, moderately well-nourished, man of middle age, extreme pallor of skin and mucous membranes. No edema; no edema of superficial lymphatic glands. Very marked rigor mortis. Small, round exostosis, about 1½ c. m. in diameter, present in middle of left parietal bone. Dura mater a little tense; larger veins in diploe of skull are filled, in the longitudinal sinuses a considerable amount of fluid blood and a few small clots.

The pia mater is hyperemic and a little edematous on both sides; convolutions on the right side are slightly flattened, a moderate amount of Pacchionian granulations along the longitudinal fissure. The same hyperemia of pia mater at base of brain; large blood-vessels at base of brain are normal; a very large amount of dark fluid blood at sinuses at the base of brain. Half a teaspoonful of blood-stained fluid in the left lateral ventricle, marked hyperemia and slight edema. Conditions exactly the same on the other side. Sella turcica and plexuses hyperemic. The third ventricle is normal. Bottom of fourth ventricle shows a few hyperemic veins (small), no hemorrhages present. Cerebellum hyperemic and edematous; basal ganglia hyperemic. No hemorrhage anywhere.

Marked edema of soft tissues at lower part of chest. Peritoneum slightly hyperemic; about a teaspoonful of clear fluid in recto-vesical pouch, but little fat present in the omentum. Diaphragm at fifth rib on both sides. The liver projects two-finger breadths in mammary line on the right side; a considerable part of the middle portion of left lobe of the liver is exposed.

In left pleura there is about 100 c. cm. of slightly blood-stained fluid; in right pleura about 200 c. cm. of more intensely stained fluid—no adhesions. Remnant of thymus gland present; a teaspoonful of fluid present in pericardium, the veins of which are much injected. Heart is of normal size; right ventricle dilated, left ventricle in moderate contraction; much fluid blood and a few small clots present in pulmonary artery; valves normal, a few yellow spots in aorta and in right coronary artery; heart muscle very cyanotic and edematous. From cut ends of the large blood vessels a large quantity of dark blood is discharged.

A number of small petechie in the posterior part of pleura of left lung; very marked passive congestion, edema and collapse of posterior part of left lung. The entire lung is more or less edematous. Very marked hyperemia of mucous membrane of bronchial tubes, which contain foamy, bloody fluid. Extensive collapse of posterior part of upper lobe of left lung.

Right lung is in very much the same condition, plus some small broncho-pneumonic patches scattered through the middle lobe in the posterior part.

Spleen slightly enlarged, and the pulp is full of dark, almost black, venous blood; organ is quite hard.

Left adrenal normal; left kidney, very marked cyanosis and some edema, no visible lesions. Right kidney same as left.

Bile duct patulous, pylorus also; passive congestion of mucous membrane of stomach. Pancreas in marked passive congestion. Liver enlarged; gall bladder and contents normal; liver shows very marked passive congestion and is edematous—slight enlargement—and hyperemia of retroperitoneal and mesenteric lymphatic nodes.

In the small intestine there is a moderate amount

c. feces of absolutely normal appearance. In large intestine there is bright yellow semi-fluid material; mucous membrane of intestines perfectly normal, except for marked passive congestion and a little swelling in the upper part of jejunum. No swelling of lymphoid particles.

Microscopical examination of stained specimens of medulla pons and cerebellum showed all capillaries overfilled with blood.

Let us now examine these cases critically in order to ascertain what differential diagnostic points can be brought out.

In the first place, there is no doubt there was a local epidemic in the house mentioned, as we are accustomed to see after tainted sausage or meat has been eaten.

The entire absence of fever, of cholera-like diarrhea with cramps in the calves, of cyanosis, of carbuncles, excludes the diagnosis of anthrax. On the other hand, the nervous and secretory disturbances point to baccilus botulinus infection. The typical picture of botulismus is briefly as follows:

In addition to the intestinal sypmtoms already mentioned, early diminution in the secretory function occurs, which demonstrates itself through absence of perspiration, through diminished or absent salivary secretion, causing dryness and ulcer formations in the mouth and throat. The dryness of the respiratory tract causes the hoarseness of the voice and the croup-like cough; the dryness of the intestinal tract produces constipation. These symptoms are dependent on paralysis of the secretory nerves or their centers. Besides, we have disturbances in the course of the cerebral nerves. Patients often complain of seeing films, colors, and of diplopia. The movements of the eye muscles are often impeded, the pupil dilated and reacting sluggishly. Very often we find paralysis of the levator palpebra superioris, causing ptosis, this sign being particularly pathognomonic for botulismus. Often enough we find involvement of the hypoglossus and glosso-pharyngeal nerves, causing well-known symptoms. I wish here to emphasize that I do not attribute the complete aphonia and aphagia as much to the bulbar involvements as to the dryness of the mouth, pharynx, esophagus, trachea and bronchial tubes. As a result of the diminished sensibility of the isthmus faucium and pharynx particles of food get into the trachea with consequent aspiration-pneumonia. Of the cerebral symptoms, I mention headache, vertigo, and great apathy.

The muscular weakness is very pronounced. Most always there is present a feeling of thirst, sometimes of hunger. The voidance of urine is undisturbed.

The disease can result in death in a few hours, or a few days, or may linger for months, with alternate intervals of improvement or retardation. To be sure, many cases recover; still the mortality is between 20 and 40 per cent.

The confusion of this disease with acute bulbar paralysis is, in my opinion, to be excluded for the following reasons:

Primarily, we have in botulismus a paralysis of the secretory nerves or centers, which never occurs in acute bulbar paralysis. You will remember that in bulbar paralysis the saliva flows out of the mouth. The lips in botulismus are not paralyzed—a constant symptom of bulbar paralysis, in the same way as ptosis is in almost constant symptom of botulismus. Furthermore, the acute bulbar paralysis is almost always combined with paralysis of one or more limbs, while in botulismus such paralysis is absent; and we only occasionally find paresthesia in fingers or toes. In addition the epidemic occurrence negatives acute bulbar paralysis.

The therapy depends principally upon eliminating the poison as quickly as possible from the stomach and intestinal tract through stomach lavage and purgatives, the best of which is calomel. If the symptoms are those of paralysis of the secretory functions, so that we must conclude the poison has been carried into the circulation, then we should resort to venesection and saline infusion. On the theory of paralysis of the secretory functions, it seems wise to me to try diaphoresis by means of steam or pilocarpin. I scarcely believe that a diaphoretic attempt in bed with steam or pilocarpin would be injurious to the patient, if the heart is not too weak, and arguing from the beneficial results obtained by this measure in uremia it might be of even life-saving value in this disease. To prevent inanition and aspiration-pneumonia, food should only be given by stomach tube. The hygiene of the mouth and skin should be carefully observed. Against sleeplessness morphin subcutaneously should be given, and for threatening heart failure the usual cardiac stimulants should be employed.

At the monthly meeting of the Hawaiian Medical Association on Saturday evening, December 6th, the pestiferous mosquito was on the board for dissection. Dr. Sloggett, president, read a paper on the subject, which was followed by a discussion. No definite line of public action was suggested, the idea being to bring the matter into agitation.

President Sloggett's paper gave a resume of the experiments conducted on the Atlantic coast, which had achieved considerable results of a satisfactory nature. The remedies for the pest were drainage, the filling of swamps and the application of petroleum to stagnant water. Reference was made to the great difficulty recognized as lying in the way of remedial measures here, from the rice and taro fields in the vicinity.

SUPPLEMENTAL REPORT ON HYGIENE*

By H. J. CROMPTON, M. D., Sausalito.

IN presenting a paper on this important theme, it would be presumptious if one claimed originality in treating so large a subject, and one as old as history. We have authentic information that the Israelites, as nomads in the desert and camp, or as dwellers in conquered, walled cities, had up-to-date knowledge of preventive medicine, as set forth in the Mosaic code, whose provisions were rigorously enforced from religious, as well as sanitary, considerations providing for personal cleanliness, purification of tents or dwellings, the selection of healthful, wholesome food, the seclusion of persons with contagious disorders, and in other ways caring for the physical well being of the Jewish nation. So, too, with the ancient Greeks and Romans, who, unlike the Jews, were not prompted from religious convictions, yet were far from neglectful in sanitary matters, such as drainage, sewerage, the construction of splendid aqueducts, thus providing for an abundant supply of pure, free water, and bathing places for the people. They early organized types of our modern boards of health, by whom the people were warned against avoidable, self-inflicted causes of human suffering, such as dietetic imprudence, filthy, overcrowded, illy ventilated habitations and the like. About the dawn of the Christian era there was a retrograde movement all along the line, apparently throughout the habitable globe. All sanitary care of the body became a thing of the past; to a great extent the human race became almost exclusively flesh-eaters, sometimes partaken of in a putrid state, or preserved from such by immersion in strong salt solution. Often supplies ran short, and famine and pestilence went hand in hand; and through scurvy, typhus, smallpox, and black plague there were times when extinction of the race was threatened. But in the later half of the last century sanitary science received a wonderful impetus—so splendidly illustrated in our Civil War, when so many noble men and women banded together to care for the sick and wounded of both armies. Thus were thousands of the flower of American manhood saved from untimely graves and restored to health and usefulness. We old Confederates cherished hard feelings towards our northern invaders—old Ben Butler being one of our pet aversions. We charged him with purloining spoons and other silver ware; but when we saw how instrumental he was in so nearly stamping out a visitation of yellow fever, and giving the Crescent City a thorough cleansing, he occupied a warmer place in the affections of our people! Since our war with Spain there has been the most splendid achievements in the line of preventive medicine. We need give but one illustration from the health reports from Havana, for November last, in which we read that:

> The general sanitary condition is excellent, each month showing steady improvement over the corresponding month of the preceding year. Taking November for the past eleven years, we find the maximum number of deaths, 2054, occurring in 1898; the minimum, 443, occurring this year. During the month we have had no cases, no deaths from yellow fever. This can be said of no preceding November since 1762. Taking this month for the past eleven years, the maximum number of deaths from this disease occurred in 1896, when we had 244; the minimum, 1898, when we had 13. Last year, 1900, we had during this month 214 cases, and 54 deaths. October and November are the months when yellow fever is rife. This year (1901) the last case occurred September 28th. Thus we have gone over two months without a single case or death. At last are we freed from infection.

Much of this glorious result is attributed to the war of extermination now waged against mosquitoes--charged with being the sole transmitters of the infection. Maybe this is too sweeping an assertion, but let that rest until some useful purpose is shown as an excuse for creation of that musical pest.

But looking nearer home—here in California—things sanitary are not in the most satisfactory condition, not up to date in many respects. To illustrate, unless one goes well up into the mountains near the perpetual snow lines, our beautiful streams—the source of water supply for most of our people—are used as outlets for sewers and dumping ground for swill, dead animals, offal, and other filthy refuse. Many otherwise intelligent, justice-loving citizens have fixed themselves in good shape by constructing drains and sewers from their own premises into the water supply of the fellow below! Along the sea shore, where the population is dense, conditions are just as bad —outlets and sewers into bathing and breathing places of the people modified, tis true, by the saving qualities of salt water. But let us hope these shocking conditions are not to go on forever. All we need is awakened public sentiment to condemn such a scandalous policy. Fortunately the evil is not past remedy. A polluted stream will purify itself, if we stop adding new supplies of nastiness. 'Tis well to secure proper drainage, which can be done without transforming our limpid streams into noisome sewers. Of course, sewage may be treated chemically and disposed of at a profit; or, better still, follow the old Israelitish custom of disposing of the same by the application of sufficient fire to destroy germ life and arrest the process of putrefaction.

The disposal of the human body by cremation as now managed is rather cumbersome and expensive. The funeral director as undertaker, crematory associations, livery stables and other worthies, all enjoy a share in the expenses of such disposal, so that many a poor widow pays out her last penny in following the fashion or stupid

*Read before the Medical Society of the State of California, at the annual meeting, held in San Francisco, April 14 to 17, 1902.

customs, when the bread-winner of the household passes away. Medical men, with a little concert of action, can aid in simplifying and cheapening such process radically. What is wanted is a light, portable, readily superheated apparatus, to be stationed for the time being at the back door, the remains to be placed therein and reduced to least possible bulk within about the same time as required to read this prosy article!

The scheme of municipal ownership of public utilities, such as light and water plants, is quite popular just now, and a step in the right direction, as, for example, there are towns near the seashore where the water supply is limited and maybe contaminated from want of proper supervision. Under such, and other conditions, a salt water plant should be established, the water raised to a proper elevation and distributed, and used for the many purposes for which so well adapted—the flushing of sewers, street sprinkling and putting out of fires. Of course there is nothing new about this suggestion, but there are many who apparently need such a reminder.

Members of our profession, so generally of high standing intellectually, morally and socially, ought to occupy a position of commanding influence. If you will all resolve when you go home to be active, and take more interest in the groundwork of politics, in the selection of those who are to be lawmakers in town, county, State and nation, you may secure the enactment of such laws as will give the people pure food, pure water, and a less vitiated atmosphere to breathe in, good streets and roads, thus making "life worth the living."

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

Meeting December 18, 1902, Dr. Geo. W. Merritt, Chairman for the Evening.

Dr. Geo. W. Merritt showed a case of double descemetitis, with fixed and floating opacities in the vitreous. The patient was a woman aged 22, the subject of hereditary syphilis. When she presented herself for treatment at the Clinic one month ago, the vitreous was full of opacities, but under mixed treatment the opacities have so diminished that they are now hard to find.

Dr. Louis C. Deane showed a man aged 62, for whom Dr. H. B. de Marville and he had built a nose from the skin of his forearm. The man had a rodent ulcer of the nose which had destroyed the lateral cartilages and the right ala completely, leaving an unsightly and bad-smelling cavity. The ulcer had persisted for 14 years, and the operation was done one year ago. Several secondary operations were necessary, but the nose is now completely healed and looking well. Dr. Barkan asked Dr. Deane whether the X-ray had been tried and referred to several cases of skin epitheliomata which he had successfully treated by that agent. Dr. Deane stated that operative measures had to be used for cosmetic reasons, though he also spoke of the good effect he had in the case of an epithelioma of the lip from solar rays, by which the temperature of the tumor had been raised to 200 to 400 degrees, and had totally disappeared.

Dr. Barkan showed two cases of coloboma of the lens and iris, both of which had the peculiarity of being placed upwards and outwards, although Fuchs states that coloboma of the iris is always downwards. In another case, a boy of about 20, there was marked proptosis of the right eye, with strong dilation of the subconjunctiva veins. No pulsation could be felt, nor bruit heard in the orbit. An anamnesis was not obtainable, the only thing bearing on the eye condition being the fact that the patient had been subject to very violent attacks of asthma. Dr. Eaton thought the cause was possibly a veinous tumor. Dr. Payne thought the tumor had its origin in the asthmatic attacks. Dr. Powers suggested that there might be an aneurysma, although the absence of a bruit rather conflicted with that diagnosis. The absence of pain excluded glaucoma, the mobility of the eyeball spoke against cellulitis, and the probable diagnosis, he thought, was a malign neoplasm. Replying to Dr. Deane, Dr. Barkan stated that he had not tried the effect of bending the head far forward, in order to see whether it would cause extreme protrusion, as in the case demonstrated by Dr. Merritt early in this year. Dr. Wiborn stated that he had seen two cases of orbital cellulitis due to ethmoidal trouble, but that he did not think there was any cellulitis present in this case.

Dr. Brady showed the picture and skull of a cat which had extreme megalophthalmos of the right side.

Dr. Deane exhibited some lantern slides illustrating diseases of the fundus of the eye, they had been developed in colors and showed a new departure in this class of work.

The following were elected officers for the ensuing year: President, Dr. Louis C. Deane; Vice-President, Dr. Redmond Payne; Second Vice-President, Dr. Robert Cohn; Secretary, Dr. M. W. Fredrick; Treasurer, Dr. Geo. W. Merritt; Librarian, Dr. V. H. Hulen.

DEATH.

Dr. H. H. Warburton, a pioneer physician of the Pacific Coast, died at Santa Clara on the 8th inst. He was English, born in the year 1819. He came of a family of physicians, his father and grandfather having been members of the profession. When Dr. Warburton came to this Coast there were but three physicians in California, the only other one in San Francisco having been located at the Presidio.

MISCELLANEOUS.

Impure Drugs. *American Medicine:* "Drug adulteration is a peculiarly infamous bit of scoundrelism of which both the medical and pharmaceutical professions should make an end. Is it possible, one is compelled to ask, that but a small percentage of all drugs are pure? If so, 'therapeutic nihilism' has an unexpected and most sufficient ground for being. Again appears the great need of a united and organized profession which would have mind and power to blacklist and thus kill out the dishonest dealers or manufacturers who traffic in human disease and death."

Polypoid Growth in Children. Dr. L. H. Adler, in *Pennsylvania Medical Journal:* "The only plan to be recommended in the treatment of a polypus is the removal of the growth. It is not safe either to cut or tear polypi, as troublesome hemorrhage may ensue, and the subsequent attempt to place a ligature upon the bleeding vessel is by no means an easy task.

The clamp and cautery may be employed for the removal of these growths and the method is a very satisfactory one, but the procedure is rather formidable, especially to the patient. The ligature can be, and often is, used, but the simplest method, however, is to grasp the pedicle close to its base with hemostatic forceps, and with another pair applied to the balance of the pedicle to gently twist the uppermost one until it comes away. In this manner there is no danger of hemorrhage, no pain and no necessity for the patient resting more than the first twenty-four hours."

Secretary of Health. From Dr. Henry Reed Hopkins' anniversary address before the Medical Society of the State of New York: "The efficient sanitary organization of our country, where the humblest citizen is a member of the royal family, will not be suitably inaugurated until there shall be in the Cabinet at Washington a Secretary of Health. The medical profession of the United States would require but a few national campaigns in the name and interest of State medicine to accomplish this most salutary, most desirable of sanitary achievements."

Examination of candidates for appointment in the medical corps of the United States Army will be resumed by the Army Medical Board in Washington, D. C., April 20, 1903. Classes will be invited to appear April 20th, and each Monday thereafter as long as is necessary. Full information as to method of application, nature and scope of examination, and the like, will be furnished by the Surgeon-General at Washington upon request of those interested. Applicants from civil life are restricted in age to twenty-nine years, and hospital training or professional experience in private practice is expected of all candidates. There are at present thirty-five vacancies to be filled.

Antivivisection Argument. *Philadelphia Medical Journal:* "The newspapers tell a grewsome story of how a party of Indians was taken last week to see the Chicago stockyards, and how the sights in Armour's slaughter-houses were too much for them, for one Indian fainted at the sight of so much blood and three others were taken sick at the stomach. The only logical and consistent antivivisectionists in the world are the Brahmins of India. These Hindoos hold all animal life equally sacred, and think it a sin to eat flesh. We do not understand why the American antivivisectionists should occupy a lower moral plane than the Hindoos. But our flesh-eating zoophiles will not renounce their carniverous habits, and they continue to patronize the slaughter-houses, a sight of which can make even an Indian sick."

Enema in Insanity. *British Medical Journal:* "The blood pressure is invariably low in an acute mania, while high in melancholia. The lower pressure in mania is responsible for the restlessness which is a constant symptom in this condition. This restlessness Dr. Craig has found to be relieved by the employment of an enema of eight to ten ounces of water. The patient's condition steadily improves when the enema is retained. This is a new and very important indication for this simple hydriatic procedure. The warm or neutral bath ought to be as useful in relieving the high pressure of melancholia as is the enema in relieving the low pressure of mania. The temperature of the bath should be 94° to 96°, the duration from thirty to sixty minutes."

Gymnastic Treatment of Tabes. *Deutsche Med. Woch:* "Dr. A. Bickel has recently made experiments to determine the source of the compensation from systematic exercise in tabes. He divided the sensory nerves of the hind leg in dogs. In a few months the resultant ataxia had been compensated. Extirpation of the labyrinths resulted in severe ataxia and compensation was never full thereafter. Labyrinth extirpation is not followed by ataxia, except under such conditions. After compensation of ataxia from division of hind leg sensory nerves in dogs, portions of the sensory motor zone of the cortex were removed and sensory ataxia resulted. These experiments indicate that compensation of ataxia does not result from restitution in the limbs, but is due to other organs, particularly the labyrinths and the sensory motor zone of the cortex."

X-Ray Burns. Dr. M. R. Toland in *Southern California Practitioner:* "X-ray burns are the exception rather than the rule, at the present time, as all the rays can and should be shut in a suitable lead-lined box, except those emanating from the focus point. These can be directed to the particular part we wish to treat, skiagraphy, or examine with the fluoroscope. Besides an aluminum screen, grounded, may be interposed between the tube and patient. Aluminum does not absorb the rays, hence the advisability of its use to catch all impurities in the atmosphere that may be the real cause of burns. There are many thousands of examinations made every year in the hospitals without serious burns."

Treatment of Consumption. Dr. M. J. Brooks, in *New York State Journal of Medicine:* "There is no specific in the treatment of phthisis, nor is there likely to be one; for phthisis is a degenerative process etiologically dependent upon too many factors, both predisposing and direct. Vulnerability, or susceptibility in the sense merely of cell debility—hereditary or acquired—that is the soil, and then, a decided deviation from the conditions essential to a healthy animal life. The direct cause of phthisis is a symbiosis of pathogenic organisms, two or more acting in unison. Not the tubercle bacillus alone, but also pyogenic organisms, and these latter are, in fact, far the more important. Lung destruction, with all its concomitant manifestations, is due solely to this pyogemic superinfection. The implantation of the tubercle bacillus *per se* is not necessarily pernicious. The tubercle itself is a conservative process. It is not the product of the bacillus or organism, but of the organ. Pure tuberculosis is, of course, eminently curable. Likewise phthisis in the great majority of cases, but restorative measures must ever be dependent upon the extent of pulmonary involvement and destruction.

The etiology and cure of cancer is made perfectly clear by the following communication to the president of a medical school:

Dec. 31—1902 (Happy new year.)

——— ———, N. Y. ——— R. F. D.

Dear Sir: I see by the New York *Herald* you don't know what causes a cancer or its cure. I think I can explain it so you can understand, as it is quite necessary doctors should know how to cure every part of the human system is why I write this, though our lives are all done "from before the foundation of the earth." First a vein is bursted by some cause, bruise or pressure, and then the blood is decomposed (killed) in that spot, and other blood like bees in a hive goes to see what is the matter and while trying to heal the spot become poisoned by the dead blood and so the cancer grows like a boil and poisons the whole body and life ceases. Now to cure it is to bind on a poultice of clay, that kills the bachali of all skin disseas even to leprocy or small pox, It draws the swelling all down so a core can be taken out. Tea made of Chinese night soil can poison a person when made of scroffula, leprosy or any other dissease though doctors preaches undertakers and lawyer get a job Please answer ——— ———.

—American Medicine.

California State Journal of Medicine.

Published Monthly by the
Medical Society of the State of California

Publication Committee:

Philip Mills Jones, M. D. George H. Evans, M. D.
Henry Gibbons, Jr. M. D. Dudley Tait, M. D.
Charles D. McGettigan, M. D.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

MARCH, 1903.

EDITORIAL NOTES.

THE MEETING AT SANTA BARBARA.

The attention of the members of the State Society is directed to the announcements printed elsewhere concerning the annual meeting to be held in April at Santa Barbara. Arrangements have been made to meet at the Potter Hotel, the new and commodious hotel recently opened, and while there undoubtedly will be a large attendance at this meeting, the hotel accommodations are ample to meet the requirements. The sessions of the Society will be of unusual interest this year, several very important matters coming before the legislative branch, and the scientific program promising to be more instructive and of greater scope than customarily. The social features of the meeting have not been overlooked by the committee, and side excursions to points of interest in the southern sections of the State have been provided for, making the trip to be undertaken by northern delegates and guests one of pleasure as well as profit. On the evening of the last day's session there is to be a special dinner given at the Potter. As the membership of the State Society now is over 1000, with some County Society additions to be made between this time and the meeting, the thirty-third annual meeting will bring together representatives from every part of the State, and the exchange of fraternal greetings by members of the profession living in this great empire of California can only be productive of good. During the year just closing the achievements in medicine and surgery have been most marked, and the reports of the committees on the various subjects assigned them on the scientific program will furnish a compendium of medical progress of the greatest interest and value to the profession. Prompt response should be made to the circular about to be sent to members, so that provision may be made at Santa Barbara for the entertainment of delegates and others who may attend the meeting.

THE PUBLIC TO BE PROTECTED.

Elsewhere in this number of the JOURNAL will be found the statement in outline of a proposed association of honest men; of honest physicians, pharmacists and manufacturers, intended not alone for mutual protection and benefit, but for the protection as well of the direct charge of the physician—the public. Thieves, scoundrels and patent-medicine fakers have long appreciated the advantage accruing from the association of common interests; but honest men seem as yet to realize it only to a limited degree and trifling extent. The keynote of the plan of this proposed Bureau is the association of honest men, of those whose primary intent is to be honest in spite of competition, and to brand the product of honest manufacture in such a way that the purchaser may have assurance that he is getting what he pays for and what the label on the package calls for. As conditions are at present, little or no reliance is to be placed upon the legend of the average label, even when it bears the name of a firm believed to be honest and reliable. The extract may or may not be "U. S. P."; if it is, it is probably different in many essentials from the supposedly identical extracts made by other houses; the preparation which the physician is urged to "try on his patients" may or may not contain only the active ingredients mentioned in the statements of the manufacturer, and in the quantity given—no one knows but the manufacturer; the food-stuff recommended may or may not be wholesome, and may or may not correspond with the "analysis" furnished by some unknown chemist. Who is to separate the good from the bad? The manufacturer can not do it himself, nor can any single individual; the government can not undertake the work, and if it did the result, if one may judge from the way government undertakings of the sort generally do result, would be even worse than present conditions. But the great professional interests of the country can erect a scientific machine that without personality or prejudice can stand between the manufacturer on the one hand and the purchaser and consumer on the other, and can say of such articles as it has examined and undertakes to supervise, "This thing is pure, or is good; you may rely upon it."

THE REGISTER OF PHYSICIANS.

For many years the Register of Physicians in California, formerly published by the Secretary of the Board of Examiners, has been a very useful volume. The changes in the State law, together with the retirement of the former Secretary, have resulted in the abandonment of the publication of this volume by the Board of Examiners. It has been

repeatedly urged that the State Society should undertake the publication of the Register, or of a medical directory along similar lines, and the question is one which should be brought up and settled at the next meeting. In considering it certain facts must be borne in mind. There are two general considerations: first, is the work, as heretofore, to be given to every physician in the State? second, if not, is it to be given to the members of this Society only, and sold to others, or is it to be given to the members of the Eclectic and Homeopathic State societies as well, and sold to those who are not members of any one of these three societies? It should be remembered that this class of printing is very expensive, and that the amount received for advertisements was less than $200 in excess of the actual cost of composition, printing and distribution of the last volume of the Register issued. That is not enough to pay any one for doing the large amount of work required in getting the directory out. And further, if the directory is to be given only to members of the three State societies, and sold to others, the circulation will be less, and the rates for advertising correspondingly less, and probably fewer advertisements will be received. There is every reason to believe that the publication of the directory by this Society would cost a considerable sum, but the directory published by the New York State Association has cost that association several thousand dollars; yet the members are perfectly satisfied. They probably reason that a medical society has but one excuse for existence, and that is to be of use, help and benefit to its members, and that no better way of spending its revenues can be devised than in the publication of its journal and the directory, both of which are considered useful, helpful, and beneficial to the members as individuals and to the association. This matter of publications has been carefully considered, and a full and detailed statement of the whole question will be presented at the meeting in Santa Barbara. It seems to resolve itself into a choice whether it is better to have some money lying idle in the bank or to do something worth the doing, that will be for the benefit of the membership and the profession at large.

ANALYSES OF PURE DRUGS.

The following examples are culled from various published statements of chemists regarding the analyses of chemicals labeled "Chemically Pure," or else sold as medicines, supposedly pure. It is a cheerful list to contemplate! Zinc (contained lead, iron and arsenic), Bismuth (contained arsenic), Arsenious acid (contained 40 per cent insoluble matter), Boric acid (generally contained powdered borax; sometimes as much as three times its own weight of borax; occasionally as much as 10 per cent calcium borate), Salicylic acid (rarely found C. P.; generally contained quantities of starch and calcium sulphate), Tannic acid (rarely found not adulterated with dextrin, sugar, flour or salt; one sample marked "C. P." "high grade" contained 65 per cent tannin and 20 per cent granulated sugar), Aconitin (strength varied from 1 per cent of alkaloid, to 90 per cent of alkaloid), Ammonium chlorid (generally contained alum and clay), Ammonium bromid (contained ammonium chlorid), Antimony sulphid (almost invariably contained chalk, sand, clay, etc., colored with charcoal), Aristol (some contained as high as 65 per cent free alkali; generally contains excess of alkali and free iodin; commonly adulterated with starch, talc, calcium carbonate, zinc oxid and tripoli; oxid of iron added in some cases to give proper color), Bismuth salts (all contained copper, arsenic and iron), Calcium phosphate (very frequently contains chalk, gypsum or talc), Hyoscin (some samples contained only pure atropin), Potassium acetate (lead and arsenic commonly found), Sulphonal (extensively adulterated with sodium bicarbonate; some samples found to be pure acetanilid). And yet dishonest manufacturers ask us to believe them when, in falsehood, they label adulterated packages *"chemically pure!"* Is it not time that we had some way of telling how nearly the label defines the contents? Eternal guessing is very trying.

RECENT HISTORY AND THE JOURNAL.

In April, 1902, the State Society was reorganized on the plan of county society membership requirement for eligibility to membership in the State Society. Immediately thereafter the Secretary sent notices to the various county and other local societies, urging affiliation, and to many prominent physicians about the State urging the formation of county societies where none existed. In spite of these notifications, and of much similar missionary work by other members of the Society, scarcely any activity along the lines indicated was noticeable before November. At the same meeting the Society recommended the substitution of a journal for the annual Transactions; in October the Board of Trustees authorized the establishment of the JOURNAL and voted funds for sending it to every physician in the State for some months. The first number of the JOURNAL was issued in November. Since November there has been very marked activity among existing local societies and physicians living in parts of the State where no county societies exist. It is noteworthy that most of the larger county societies have complied with the requirements for affiliation, that some others are arranging for affilia-

tion, and that several other county societies are either in process of forming or are in the preparatory stage. Incidentally it may be mentioned that the membership of the Society has trebled. These things are merely referred to in a casual way and there is no intention of continuing the argument with a stick of dynamite. The members of the State Society should certainly take much credit to themselves for their action in recommending that the annual volume of Transactions be abolished and that a journal be substituted. Certainly very few people ever look into an annual volume of transactions, and while some may not study the pages of a journal, or look at it after its volumes are completed, their attention is called to its existence and to the vitality of the Society publishing it, at least twelve times each year.

LACK OF STANDARD.

At the present time, pretty much every manufacturer of pharmaceuticals in the country is turning out products to suit himself—and his assortment of customers. Several of the largest houses have at least three grades of "U. S. P." products, due to the fact, as alleged by one of them, that they have to make their goods to suit the price demanded by the purchaser, and not, as is the popularly believed fairy story, according to the requirements of that wonderful work on folk lore, the United States Pharmacopeia! A gentleman connected with one of the largest manufacturing houses in the country says: "We receive an order like this: 'If you can furnish the goods ordered at the prices named, please do so, etc.' Now what are we to do? It is impossible to make U. S. P. standard goods at the figure named, yet if we refuse the order some other house will fill it; and we are in business for profit." So the wholesaler gets the third-grade goods, and the pharmacist, taught thrift by the manufacturer's example, buys them, and the physician's prescription is filled with them, and somehow the "personal idiosyncracy of the patient" is such that no result follows their administration. Perhaps the patient dies. We have laws, but who is to enforce them? We have a Pharmacopeia, but—perhaps the less said the better. There are certainly enough decent, self-respecting physicians and pharmacists in the country to see that this thing is changed, if they will, and the way to do it is to get together and demand that a standard be set and then lived up to; that the certificate of the National Bureau be placed upon honest products so that all men may know them and know that they are honest. It can be done, and there are enough reputable concerns ready to support the movement to assure its success.

STRENGTH OF ORGANIZATION.

After the beautiful and forceful illustrative examples furnished gratis (?) by Messrs. Carnegie, Morgan, Rockefeller, et al., he must indeed be a very blind man who cannot perceive the advantages directly accruing from perfected organization. The power of unanimity is practically incalculable, It is just this unanimity of action for which the State Society is pleading and, with the American Medical Association, is striving to attain. Granted an organization of a great majority of the physicians of the whole country, or any given section of it, and immediate results will appear. If, say, seventy-five or eighty per cent of the physicians of California were united in one society, what legislation could be passed in opposition to its dictum? With such an organization, acclaiming, as one of its first duties and privileges, the protection of its members against, for instance, attempted blackmail in the guise of "malpractice" suits, how many suits would be filed in a decade? The opinion is ventured that there would be fewer such attempts in a decade than there are now in a twelve-month. And the cost? The opinion is also ventured that the cost would be less than the total amount now paid by various members of the State Society for insurance policies covering malpractice suits; yes, a good deal less. True life is to do something worth the doing; health is given in order to do it; happiness comes from doing or helping in the doing. To plod along, not seeing, not advancing, not caring to know what others are about nor how the world is going ahead and in what lines; that is what some people seem to call "living." Why, the littlest tree toad in the land does more than that, for he makes as much noise in the world as he can. Some physicians ask themselves, or any one else they can manage to bore, "What use would it be to join a medical society?" If they would transpose these words and say, "What use would it be to the medical society for me to join it; how could I help?" they would indicate a more hopeful possibility of enlightenment. And they would help in just this way: They would each one add his decimal toward forming the unit. In decimals there is much weakness, but in the unit there is unlimited strength. Therefore, every physician in the State is urged to join his county society at once. If you have no county society, it is as much your fault as any one's, and the sooner you get busy and start a county society the sooner you will know you are alive. The State Society has trebled its membership since last November; we want to at least double the present membership before next November, and it can be done if the sleepers will but wake up.

REPORTS FROM THE COUNTIES.

The editor of the JOURNAL, together with the other members of the Publication Committee, is desirous of enlisting the coöperation of the various county societies, through their officers, in making the JOURNAL much more of a State institution than it has been possible to make it heretofore. The JOURNAL will be glad to print the proceedings of the county societies; that is, that part of the proceedings of interest to the profession generally. If abstracts of papers read before the societies are sent in by the 10th of each month, with a synopsis of the discussions, they will be given space in the JOURNAL, and the secretaries are requested to communicate with the publication office, 31 Post street, with reference to this matter. In case the secretary cannot undertake to furnish a report of the proceedings, he may be able to suggest the name of some other member of his society who would be interested in having the reports published. The JOURNAL is published in the interest of the profession in the entire State, and is circulated in forty-four of the counties. It is very desirable, therefore, that all the counties in affiliation with the State Society should know and feel that they have an interest in making the Society's JOURNAL their own as well as the parent body's organ. It is not enough that the papers read before the State Society are by authors from the different parts of the State; there are other papers of equal value and interest read before the county societies, and it is the purpose to give space for them quite as freely as for those whose publication is provided for. In this connection, members of the State Society are reminded that original scientific medical articles, not having been published in other journals, are solicited for this publication, and if found available will be given space. When necessary to explain the text, or to add to its interest, cuts will be furnished free of cost, provided drawings or photographs accompany the MS. While the circulation of the JOURNAL necessarily keeps pace with the growth of the State Society, it is believed the magazine should have a much larger circulation among the professional men who are unaffiliated. This increase in its usefulness may be brought about by personal effort on the part of members. But this is a business proposition as well as missionary, and it is the intention to put canvassers in the various counties. The JOURNAL will pay a liberal commission for securing regular subscribers, and would be pleased to have the address of medical students, or others qualified to do the work, who may desire to add something to their incomes in this way.

PERSONALITIES VS. ORGANIZATION.

Every physician either is or is not honest and honorable and ethical, so far as the practice of his profession is concerned. If he is honest and honorable in his professional work, he should be a member of his local and State Society; if he is not, he should not be permitted to join such societies nor to retain his membership in them if he has already joined. But no question other than professional integrity should be allowed to enter into the matter of medical society membership. Personal differences of opinion, envy, hatred or malice; likes or dislikes; nor race, school nor religion, should so much as be thought of when the one great question of professional organization and of membership in the local and State medical societies is considered. If there must be squabbles, let them be outside; let medical organization be on the broadest possible lines, for professional honor and advancement, and for the benefit and protection of all honest and honorable professional men, no matter what their personal differences may be. Let us have a State Society so big that personalities will be lost in it.

NATIONAL BUREAU AND THE A. M. A.

A special committee to investigate thoroughly the proposed plan of the National Bureau of Medicines and Foods (as published elsewhere in this issue), and to report to the House of Delegates at the New Orleans meeting of the American Medical Association, has been appointed by the president, Dr. Frank Billings. The chairman of the committee is Dr. E. Eliot Harris, of New York, and the members are Drs. Nathan S. Davis, Jr., Chicago; S. Solis-Cohen, Philadelphia; H. Bert Ellis, Los Angeles, and Philip Mills Jones, San Francisco. There is no doubt, from the personnel of this committee, that the subject will be fully gone into and a full report rendered at the New Orleans meeting. It is certainly to be hoped that the committee will find the details of the proposed Bureau satisfactory, or will be able to construct from the idea a satisfactory plan for undertaking the work outlined. If the busy physician could have reliable information furnished him concerning products and preparations that are constantly forthcoming, not from the persons directly interested financially, but from a dispassionate and disinterested board of scientific gentlemen qualified to gather and issue such information, it would relieve him of a great burden. And this, apparently, is but one of the advantages that will follow the adoption of the "Bureau," or some similar plan for controlling the situation. It is pretty evident that if we do not protect ourselves, no one is going to do it for us.

"IN THE 57TH CONGRESS, 2ND SESSION, H. R. 3109"; (still-born in its fifteenth reincarnation) "AN ACT FOR PREVENTING THE ADULTERATION, MISBRANDING AND IMITATION OF FOODS, BEVERAGES, CANDIES, DRUGS AND CONDIMENTS, IN THE DISTRICT OF COLUMBIA AND THE TERRITORIES, AND FOR REGULATING INTERSTATE TRAFFIC THEREIN, AND FOR OTHER PURPOSES."

OBITUARY.

It is with mixed feelings that once more is noted the passage into the great and capacious past of the fifteenth attempted passage of this Act; mixed, because of sorrow in that the law might do much good, and relief in that it could have done much harm, for it carried at least one "joker." Until the joker was discovered there was a loss to understand why certain large manufacturing houses, notorious for their questionable methods, were advocating the passage of the bill. But observe the definition of the term "drug," as given in the proposed act: "Sec. 5. That the term 'drug,' as used in this act, shall include all medicines and preparations recognized in the United States Pharmacopeia for internal or external use." If there is any manufacturing house in the country that is paying dividends on the profits derived from those drugs which it manufactures, and which come within this definition of the term "drug," we should be glad to know of it. And against the bill, in addition to the *advocacy* of certain manufacturers, which in itself had much damning weight, were a goodly number of honest manufacturers who objected to the possibility of a "hold up."

HIC JACET

THE PURE FOOD AND DRUG BILL.

REQUISCAT IN PACE.

PROPRIETARY PREPARATIONS.

To those who are interested in modern therapeutics and materia medica, no question is more pressing nor more perplexing than that of a proper method of dealing with the very large and rapidly increasing number of "proprietary" remedies. Many of them are of undoubted value, yet the various manufacturers are so persistently paralleling each other, especially in those preparations that have recognized value, that he who would use them is soon distracted by the number of similar preparations and buried under the mass of one-sided trade literature sent out by the manufacturers. A committee of the section of Materia Medica and Therapeutics of the A. M. A. was appointed last year to consider the question; more recently the New York Academy of Medicine passed a resolution calling for the appointment of a committee for a similar purpose. So far as can be learned, however, the question remains as far from being solved as ever, though it is certainly to be hoped that something will be done before long, and relief, at least partial, secured.

IMPORTANT PROGRAM.

The scientific program for the thirty-third meeting of the State Society promises to eclipse any of the programs which have ever come before that body. The program, in part, will be found on a preceding page. A number of valuable contributions to the science of medicine and surgery will be read, and it is hoped that the discussions will be of as good quality as the papers. The members are reminded that they will be allowed only twenty minutes in which to read their papers, and are advised to cut out all statistical matter and all matter which may be found in text books. Matter thus left out during the reading of the paper may be left in for publication. If this rule is observed the reader of a paper will not be cut off at the most interesting portion, and the discussions will be much more satisfactory.

NO MEDICAL LEGISLATION.

Three bills were presented at the late session of the Legislature, the purposes of which were to change, in various particulars, the provisions of the existing law regulating the practice of medicine and surgery in this State. One of these bills was not reported back from committee, one was withdrawn, and the other was defeated by vote in the Senate, where it originated. The advocates of these bills were very active in their endeavors to change the existing law, and in at least one instance resorted to misrepresentation in order to enlist the favor of legislators. Several regular and homeopathic societies voted unanimously in favor of retaining the existing medical law on the statute books, and those societies are among the most important in the State; and yet they were charged with being of no consequence and with acting in a biased manner by those who chafe under the wholesome restrictions of the present law. The State Medical Society was attacked and designated "a small coterie of men representing favored colleges," whereas the State Society is composed of representatives from forty counties, with a membership of over a thousand. The undoubted sentiment of the majority of California physicians is against change in the present law, at least until a better one can be suggested, and the lawmakers acted wisely in turning a deaf ear to the specious pleading of a *real* "small coterie of men representing"—themselves.

NATIONAL BUREAU OF MEDICINES AND FOODS.

FOR PURE AND HONEST DRUGS, CHEMICALS AND FOOD-STUFFS.

THE IDEA of establishing a board of qualified experts who should represent the interests and the support of the professions of medicine and pharmacy, and through the medium of such board secure, (1), more general conformity to the standards of the pharmacopeia; (2), drugs, chemicals and food-stuffs that will be actually as labeled and can be relied upon; and (3), deal in a proper professional and ethical manner with the large and ever-increasing number of proprietary preparations and mixtures that are being presented to the medical profession, as was first suggested by Dr. F. E. Stewart at the meeting of the American Medical Association in 1881.

This idea has been elaborated and plans have been formulated which it is thought will secure the objects desired. These plans have been approved by a number of representative manufacturers, physicians and pharmacists and it is evident that if the professional interests and the people of this country (and especially the members of the American Medical and the American Pharmaceutical Associations) really desire relief from the present unfortunate and distressing condition of materia medica and pharmacy, and of adulterated and dishonest food-stuffs, such relief is at hand.

Primarily, this plan contemplates the voluntary association of honest manufacturers and pharmacists who will agree with the board of experts representing pharmacy and medicine, upon standards of identity, purity, quality and strength, to which their products shall comply, and will further agree to carry out these standards and to comply with the necessary rules governing manufacture, etc.

Organization for the purposes indicated will be begun by the formation of a corporation on the membership plan—no stock issued and not for profit—under the name of the National Bureau of Medicines and Foods, and all the members of the American Medical and the American Pharmaceutical Associations are made members of this Bureau. It is proposed that the board of directors governing this Bureau be elected by these two associations, each having five directors, one from each association retiring annually and a successor elected for five years.

In order to indicate to the physician, the pharmacist or the purchaser such articles as comply with the standards of identity, purity, quality and strength, and may in consequence be relied upon to conform truthfully with the labels affixed, and also to reward the honest manufacturer and pharmacist for his honesty and aid him in competition with dishonest or impure products, those manufacturers and pharmacists who affiliate with the Bureau in this work, will be authorized to print upon the label of such of their products as are placed under the supervision of this Bureau a certificate of identity, purity, quality and strength, of a form to be indicated by the board of directors.

All possible precautions in the way of frequent inspection, analysis or assay, will be taken by the Bureau in order to keep certified products up to the standard and to protect the Bureau certificate from fraud. In addition to the original analysis of each "batch" every article bearing the Bureau certificate will be purchased in open market from time to time and submitted to analysis, assay or comparison with standard samples.

The Bureau will also gather and diffuse reliable information relative to materia medica products, chemicals and food-stuffs and to those who manufacture or deal in the same, and it is believed that in a comparatively short time such information will replace and do away with the one-sided and unreliable trade literature, which is at present, in many instances, the only available source of information.

The work of the Bureau will be purely commendatory and not in any way condemnatory, so that it can in no event become an agent of blackmail.

As the Bureau is not a commercial enterprise, is not organized for a profit nor for money making, only the actual expense for doing the work required will have to be defrayed. It is proposed to assess this actual cost upon the various manufacturers and producers whose goods are certified by the Bureau, each in proportion to the amount and value of the goods so certified. This feature of the plan has been considered satisfactory by those who have signified a willingness to affiliate with the Bureau.

In addition to the two associations already mentioned, any scientific society that may vote to affiliate with the Bureau may do so, and its members then become members of the Bureau; and further, any person who so desires or who is willing to signify his approval of the aims and objects of the Bureau, may become a member upon the payment of one dollar per year.

PROPOSED CERTIFICATE OF INCORPORATION.

We, the undersigned, all being persons of full age, and at least two-thirds being citizens of the

United States, and at least one of us a resident of the state of New York, desiring to form a corporation, pursuant to the provisions of the Membership Corporation Law of the State of New York, do hereby make, acknowledge and file this certificate for that purpose, as follows:

First: The particular object for which this corporation is to be created is:

To determine upon and fix standards of identity, purity, quality and strength and to secure adherence to prescribed formulas of all drugs, chemicals, food-stuffs and of all articles intended for use in the arts and sciences or for human consumption; to diffuse accurate and reliable information as to such articles, preparations or products and as to those making or dealing in the same; to procure uniformity and certainty in the foregoing or allied trades; to supervise the manufacture, preparation or production and distribution by its members of all commodities, articles or preparations mentioned, and upon sufficient evidence that the standards of identity, purity, quality and strength, as well as adherence to prescribed formulas have been maintained and that all requirements for manufacture, preparation or production as set forth in the by-laws, rules or regulations made and provided have been complied with by the member manufacturing, preparing, producing or distributing such commodities, articles or preparations, to issue to such member a certificate of identity, purity, quality or strength and compliance with prescribed formulas, which certificate shall be of the form and nature and shall be used in the manner set forth in the by-laws, rules or regulations for that purpose made and provided; to settle differences between its members and to promote a more friendly intercourse between business men and between its members; to aid, stimulate and encourage research, investigation and study that will tend to enlarge, improve or increase and diffuse knowledge and information of materia medica, chemistry, pharmacy, pharmacology, pharmacognosis, pharmacodynamics, therapeutics and all arts and sciences allied thereto.

Second: The name of the proposed corporation is the NATIONAL BUREAU OF MEDICINES AND FOODS.

Third: Its principal office is to be situated in the city of New York.

Fourth: The number of its directors shall be ten.

Fifth: The names and places of residence of those persons to be its directors until its first annual meeting are as follows:

Sixth: The annual meeting shall be held on..

(Signed) Committee on Organization.

PHILIP MILLS JONES, M. D.,
Chairman.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular monthly meeting was held on Tuesday evening, March 10, 1903, and in the absence of President Kengla, Dr. George H. Evans was called upon to preside.

Dr. L. W. Allen read a paper on "Pancreatic Calculi."

Dr. E. E. Kelly read a paper on "A Case of Pancreatic Cyst." (Dr. Kelly's paper will be found in full on page 143.)

Dr. Philip King Brown read a paper on "Clinical Pathology of Diseases of the Pancreas." (Dr. Brown's paper will be found in full on page 140.)

[The publication of Dr. George Goodfellow's paper, read at the last meeting, and announced to appear in this issue of the JOURNAL, for unavoidable reasons must be deferred.—ED.]

At the regular meeting of the Sacramento Society for Medical Improvement, held at the office of Dr. W. A. Briggs, on Tuesday evening, March 17th, Dr. T. W. Huntington read a paper on "Operative Treatment of Fracture of the Patella."

Samuel D. Gross Prize.—The Philadelphia Academy of Surgery announces that the Samuel D. Gross prize of $1200 will be awarded January 1, 1905. The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding 150 printed pages octavo in length, illustrative of some subject in surgical pathology or surgical practice, founded upon original investigations, the candidates for the prize to be American citizens." The essays, which must be written by a single author in English, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 South Thirteenth street, Philadelphia," on or before January 1, 1905. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

Adulteration of Foods.—While we wait in vain for our political bosses to do something for the health of the people, Queensland has perfected a system to protect her citizens from the scoundrels who seek to cheat them by the most vicious criminality in the manufacture of impure and poisonous foods. Strict laws are enforced in Queensland as to the substances that may and may not be used as ingredients, coloring matters, preservatives, etc., of beer, alcoholic liquors, mineral waters, fruit essences, foods, milk, tea, vinegar, butter, cream of tartar, etc. There are detailed laws also as to the carrying on of the businesses pertaining to the manufacture and sale of all such things, and a fine not exceeding $250 is provided for infringement of any parts of the law. Were it not for the hope that the careless and corrupt and ignorant among our people and their lawmakers will at last renounce their ways and become interested in the health and welfare of the nation, the outlook for republicanism in government would not be hopeful.—*American Medicine.*

FINAL RESULT OF A LORENZ OPERATION FOR CONGENITAL LUXATION OF THE HIP.*

By EMMET RIXFORD, B. S., M. D., Professor of Surgery, Cooper Medical College.

DR. RIXFORD presented a case of Congenital Luxation of the Hip, showing the final result of Lorenz' operation, performed three years ago, giving the following clinical history:

M—— O'B——, girl, aged 17 months, presented congenital luxation of the left femur in April, 1900, the head of the femur resting on the dorsum of the ilium. By the method of Lorenz reposition was made without great difficulty, and the pelvis and thigh enclosed in a firm plaster of paris spica. The child was very fat and very active, and soon after attempting to walk wriggled sufficiently inside the plaster to reluxate the hip. She was then brought again to the city and the dislocation again reduced and a new plaster spica adjusted with the thigh in adduction of 90°. Within a month luxation again occurred. It seemed impossible to hold the hip in position with a single spica. After two more trials, a double spica was applied with both thighs in abduction of 90° and posterior flexion of perhaps 5°. (The same position may be described as flexion of 90° and abduction of 95° on both sides.) This double spica was worn from November, 1900, to February, 1901, when it was removed, the child being comfortable and able to get about surprisingly well with the help of a chair. When the bandage was removed, the head of the bone was apparently in the acetabulum and extension of 30° to 40° could be made without pain and without reluxation. Taking no chances of reluxation, the double spica was replaced and worn till April 1st, making five months in double spica. A single spica was put on with the thigh extended, so that it was in position of 60° abduction. In June a spica was applied in 45° abduction in which the child could walk well. There was slight toeing outwards and some straddle, though the limp was slight. The parents said that she walked better in this spica than she did before the operation. In September, 1901, seventeen months after the operation, the plaster spica was finally removed. Extension was perfect, flexion was made without resistance to 90° and the function of the hip in walking was excellent.

The patient was not seen again till a few days ago. She is now four years old, walks without limp, does not even toe outward. Flexion, extension, abduction and adduction are normal and rotation nearly so, external rotation being about 5° greater than internal rotation. The trochanter on the luxated side is about a quarter of an inch higher above Nelaton's line than the right trochanter, but this may be partly accounted for by the twisting of the neck of the femur on the shaft, which is apparent in the radiograph taken a day or two ago. (Reproduction herewith.)

It was objected by Hoffa, to Lorenz' operation, that in many cases it resulted in transforming a posterior luxation into an anterior, in which position the function was good, though the

radiograph would show that the head of the bone was not in the acetabulum. There was question whether in this case the head of the bone was not in front of the acetabulum, but it would appear from the accompanying radiograph, as well as from the fact that the head of the bone can be felt, but is not unduly prominent, that it is in the acetabulum. Lorenz retorted when the above objection was made that it was a very desirable thing to have a perfect Roentgen radiograph, but that in default of it he preferred good function to a good picture. Certainly in this case the function is all that could be desired. There is neither

(*Continued on page 147.*)

* Presented before the California Academy of Medicine, February 24, 1903.

CALIFORNIA ACADEMY OF MEDICINE.

At the regular meeting of the California Academy of Medicine, held at the offices of Dr. Harry M. Sherman, on Tuesday evening, February 24th, Dr. Rixford presented a patient showing final result of an operation by Lorenz method, in a case of congenital luxation of hip. (Dr. Rixford's remarks and reproduction of a radiograph will be found on opposite page). Dr. Rixford also presented a patient showing result two years after removal of parotid gland for epithelioma. He said:

In May, 1900, the patient, T. K——, aged about 50, gave the history of having noticed a pimple on the edge of the pinna above the tragus some eight months previously. This gradually increased in size, broke down and became extremely painful. On examination an ulcer was seen to involve the inner helix and to extend up on the scalp a short distance. The edges were undermined and the surface exquisitely tender when touched. A portion was excised for microscopical examination and found by Dr. Ophüls to be epithelioma. On May 8, 1900, the entire inner helix and neighboring portion of the scalp were removed down to the periosteum, the outer helix sutured to the scalp and the interval of denuded periosteum covered with Thiersch skin grafts. There was too much bleeding for immediate application of the grafts, so they were kept in 0.6 per cent salt solution and put on some twelve hours afterwards. The patient left the hospital five days later, the grafts having lived. In February, 1901, the patient again returned with extensive recurrence in the parotid region and metastasis in the deep glands of the neck. A vertical incision seven inches long was made and the parotid gland, which could not be separated from the tumor, removed completely. The facial nerve was identified and preserved and the spinal accessory dissected free. The wound was closed with silk gut sutures. On the fourth day the wound was examined and found to have healed by primary union. The patient left the hospital on the tenth day. Since then the patient has been occasionally seen and thus far, at the end of two years, exhibits no sign of recurrence. For a few days there was paralysis of the facial, but the power of moving the eyelids and cheek muscles soon returned. The right half of the lower lip is, however, paralyzed, for it was impossible to preserve the cervical branch of the facial since it passed directly through the tumor mass. The cosmetic effect of preservation of the outer rim of the prima is excellent.

Dr. Douglass W. Montgomery presented a patient showing eruptions caused by iodid poisoning. The man had undertaken a self-cure with the use of a patent medicine. A microscopic specimen was shown indicating the similarity in structure to that found in the case of epithelioma.

Dr. Cheney inquired what, if any, external treatment had been employed. Dr. Montgomery replied that nothing was administered save some acetate of potash, but he did not think it did any good. The ordinary treatment for cleanliness was insisted upon. It was curious that while quite a large piece of tissue was removed from the tuberous growth above the eye, very little scar resulted. This he thought due to the fact that the growth from which the section was cut was a new growth and none of the tissue proper had been excised.

Dr. William Fitch Cheney read a paper on "A Case of Pancreatic Cyst." (Dr. Cheney's paper will be found on page 136.)

Dr. L. W. Allen read a "Report of a Case of Pancreatic Calculi," exhibiting the dissected pancreas and contiguous ducts containing pancreatic calculi. (Dr. Allen's paper will be found in full on page 138.)

Dr. Rixford said the cases were very interesting. He had recently under observation a case of pancreatic cyst, the sequel of gall stones. Two weeks after operation it was discovered that intestinal contents came through the drainage tube. He reasoned that if these contents could get into the drainage tube, there was nothing to prevent the pancreatic fluid from passing out through the same channel. The drainage tube was withdrawn and the result was as expected. There was no recurrence of cyst.

Dr. Evans said there was danger from infectious material in case of presence of intestinal contents. What are these pancreatic calculi due to? Is it not probable that infection from intestines may travel up the ducts and so cause a pancreatitis? May not many cases of pancreatitis have this infectious origin? An obstruction or occlusion by gall stones at the ampulla of Vater, raising the pressure in the common duct above that in the pancreatic ducts would cause the passage of infectious bile into the pancreas. Some cases no doubt have this infectious origin.

Dr. Rixford said he had had four cases all associated with gall stone trouble or calculi, and these furnish some value as negative evidence in the etiology of pancreatitis.

Dr. Hunkin inquired what connection there is between the use of alcohol and pancreatitis?

Dr. Cheney replied that whatever effect the use of alcohol may have it does not affect the pancreas. He said that one interesting point had been referred to and that was that sugar had not appeared in the urine before the operation, but that it appeared after.

Dr. Moss said that in the case reported by Dr. Allen there was nothing diagnostic in the presence of pain in the back. It is common to have pain in the back from lesions of any of the abdominal viscera, and he found, in studying a number of cases to determine the localization of pain due to trouble in different organs, that pain in the back was not a diagnostic symptom of an individual organ.

Resolutions were presented and adopted deploring the death of Dr. James F. McCone.

SYMPOSIUM ON DISEASES OF THE PANCREAS.

REPORT OF A CASE OF PANCREATIC CYST.*

By WILLIAM FITCH CHENEY, M. D.

Professor of Principles and Practice of Medicine, Cooper Medical College, and Physician to Lane Hospital, San Francisco.

ON January 28, 1902, a man presented himself at the Medical Clinic of Cooper Medical College Dispensary, complaining of a "lump" in his stomach. On cursory examination a large abdominal tumor was found, and the man was referred to the clinic ward in Lane Hospital for further investigation. He entered the Hospital the same day.

The following history was elicited: The patient was 56 years old, born in Wisconsin, by occupation a fireman on engines. His family history was negative; likewise his history of previous illness, except for a so-called "abscess in the bowels," on the left side, two years before. This abscess kept him in bed eight weeks, but finally broke spontaneously, discharging through the rectum, after which he recovered and remained well. He never had gonorrhea; but had a sore on the penis twenty years previously, for which he was treated and which evidently had no secondaries following it. He used alcohol occasionally to excess, but not habitually; and smoked moderately. For years his work had been that of a miner, involving hard, muscular strain; but lately he had been an engine fireman.

In May, 1901, following some indiscretion in diet, he had an attack of abdominal cramps, accompanied by vomiting; this attack lasted for half a day, and was so severe that laudanum had to be taken. The next day, though weak, he was well enough to go back to work; but he had no appetite for two weeks afterwards and his food distressed him. Only a few days after this he noticed, for the first time, a little lump about the size of a walnut on the right of the middle line of the abdomen, high up. This had grown steadily ever since, until it reached its present size. He complained of no pain, except that just before meals, when hungry, the tumor seemed to become bunched and had a dull ache in it, relieved by taking food. His appetite was good, he had no nausea or vomiting, his bowels moved each day, he did not get short of breath easily, and had no dizziness. He had not lost in weight during the nine months since his illness began.

On inspection the patient was found to be a large, well-nourished man, rather florid in color, not pallid or icteric or cachectic. Before describing his abdominal tumor, let me say that no other part of the body showed any abnormality. Both lungs were clear throughout. The heart's area of dullness was normal, and the sounds, though distant, were clear. The radial pulse averaged 80 to the minute, was of fair tension and volume, regular in force and rhythm, but with the arterial wall moderately sclerotic. The urine was normal in amount and in analysis. There was no edema, no enlargement of lymphatic glands, no loss of knee-jerks.

On *inspection* of the abdomen a tumor was plainly seen. It occupied mainly the left hypochondrium and the epigastrium, extending slightly across into the right hypochondrium. Its contour was smooth and rounded. Its size, so far as its circumference was visible, was apparently that of an infant's head. It was evident that the tumor pulsated; that is, it was lifted up vigorously above the level of the abdomen with each beat of the heart. Furthermore, on watching the tumor for a time, its contour seemed to change—a bulging occurred in the left hypochondrium, gradually passed across the tumor to the right and then disappeared, leaving again the regular, rounded outline at first seen. These waves were not continuously present, but could always be brought out by kneading the tumor with the hand or by slapping it with a wet towel. Sometimes they were spontaneous. Invariably they ran from left to right. Finally, with a good light on the tumor, it was easy to see that it descended slightly on deep inspiration. Thus by the eye alone it was possible to determine several very important facts about this tumor—its location, its shape, its size, its apparent pulsation, the waves of peristalsis that ran across it, its descent on inspiration.

Palpation confirmed several of the facts as thus elicited: That the tumor was rounded and regular in outline, that it was about the size it looked to be, that it pulsated forcibly under the hand, especially at the summit, that it was moderately movable on deep inspiration. In addition, palpation gave three other important bits of evidence. First, the tumor was found to be distinctly elastic to touch, by which we learned that it contained fluid of some sort; second, there was no tenderness over the enlargement or about it; and third, the pulsation was much fainter at the sides of the mass than at its summit.

Percussion showed that over the summit of the tumor there was relative dullness, within quite a regular circle, while around this there was every-

* Read before the California Academy of Medicine, February 24, 1903.

where tympany; but the circular area of dullness was much less in diameter than that of the tumor as determined by palpation, showing that the mass must lie deeply and that only its top reached and pushed out the abdominal wall.

Auscultation revealed a bruit, best heard over the summit of the tumor and less distinct at the sides. This bruit was synchronous with the radial pulse; and we knew that it must be produced in the tumor or by the tumor, for there was no murmur over the heart to be transmitted to the tumor.

Such were the facts as found in the history and physical examination. What was their meaning? To reach a diagnosis it was necessary *first,* to consider what might possibly give rise to a tumor in the situation this one occupied, and *second,* to discuss each possibility in the light of the facts discovered. The possibilities were as follows: (1) an aneurysm of the abdominal aorta; (2) a new growth of the stomach; (3) a new growth of the colon; (4) a hydronephrosis; (5) a hydatid cyst of the left lobe of the liver; (6) a pancreatic cyst.

(1) An aneurysm of the abdominal aorta would have occupied the situation that this tumor occupied. It would have been likely to occur in a man of this patient's years, with the arteries sclerotic. It would have been rounded and elastic. It would have given pulsation upon palpation and a bruit upon auscultation. In fact, on superficial investigation it looked very much like an aneurysm. But on more careful examination, the evidence positively excluded this diagnosis. An aneurysm has expansile pulsation, that can be felt at its sides as well as at its summit. But this tumor had its maximum pulsation at its summit, as the patient lay upon his back, while there was little or no pulsation perceptible at the sides, when the tumor was grasped by both hands. Furthermore, when the patient was turned upon his hands and knees, no pulsation at all was felt, either at the summit or at the sides. The bruit likewise disappeared with the patient in this latter position. Thus it became clear that the tumor, whatever else it was, was not an aneurysm; but that it was situated deeply in the abdomen, lying upon the abdominal aorta, transmitting the latter's pulsation and by its pressure causing the bruit.

(2) The stomach came under suspicion, first because of the location of the tumor, and second because of the peristaltic waves discovered, running across it from left to right. But no malignant growth in the stomach could have reached such dimensions without producing symptoms, especially pain and vomiting, emaciation and cachexia. Further, no malignant growth of the stomach would have been so rounded and regular in contour, so elastic to the touch and so free from tenderness. But to positively eliminate the stomach, two special methods of investigation were employed; *first,* stomach analysis, and *second,* stomach inflation. Analysis of stomach contents, removed one hour after the Ewald test meal, showed a total acidity of 64, of which 50 parts were free HCl; in other words, a slight hyperchlorhydria, the very opposite of the characteristic analysis in malignant disease. Inflation of the stomach with carbonic acid gas gave even more valuable evidence; for after this was done nothing but tympany was found over the tumor on percussion, and yet the tumor had not been displaced by the distension. Evidently, therefore, the stomach lay directly in front of the tumor, between it and the abdominal wall. By its pressure on the pylorus from behind the tumor had caused partial occlusion, necessitating hypertrophy of the muscular wall of the stomach, and so giving rise to the visible peristaltic waves.

(3) The transverse colon lay in the region the tumor occupied and might possibly have been its seat. But there had been no symptoms pointing to an affection of the bowel, no colic, no constipation or diarrhea, and no loss of weight. The waves of peristalsis observed might have occurred in a hypertrophied intestinal wall, but they would then have run from right to left, instead of from left to right. Most important of all, the tumor had been found by investigation to lie behind the stomach, an anatomical situation that the colon or a new growth in it could scarcely by any possibility attain.

(4) A hydronephrosis or malignant disease of the left kidney would not have been situated in the epigastrium and hypochondrium, but rather with its upper pole in the hypochondrium the tumor would have extended downward and inward to the lumbar and umbilical regions. A malignant growth, by the time it reached this size, would have caused marked cachexia and emaciation; and the urine would have contained blood, either constantly or occasionally. A hydronephrosis would probably have given a history of marked decrease at times in the size of the tumor, accompanied by an increase in the amount of urine. But the man had no cachexia or emaciation; his urine was perfectly normal and remained so constantly during the days he was under observation; his tumor had never varied in size, except to grow steadily larger; and he secreted each day an amount of urine within the normal range and never widely varying in amount.

(5) Could the cyst be one of the liver? The main argument against this was its situation with reference to the stomach. Having found that the stomach lay in front of the tumor, the tumor could not possibly occupy the left lobe of the liver, because of the anatomical relation of these

viscera. Furthermore, there was found a much greater excursion of the liver on deep inspiration than of the tumor; for the liver descended approximately 7 cm., and the tumor only 3½ cm., which indicated quite positively that the tumor did not form a part of the liver.

(6) By a process of elimination, therefore, pancreatic cyst became the most likely diagnosis. On the other hand, the essential points in the history—a gradually increasing tumor, without pain, vomiting or wasting—corresponded with those found to occur in cyst of the pancreas; while the physical signs were those of a cyst originating deeply within the upper part of the abdomen, pressing on the abdominal aorta posteriorly and upon the stomach anteriorly, all of which would be true of a pancreatic cyst. The absence of any of the signs commonly considered diagnostic of pancreatic disease, viz., glycosuria, jaundice and fatty stools, was not looked upon as vital to the diagnosis, because with the cases of cyst reported these conditions have been far from constant.

After a week of observation and investigation a diagnosis of cyst of the pancreas was thus reached; and on February 6th the cyst was evacuated by Dr. Stanley Stillman, and about one quart of fluid removed. This fluid was sent to the pathological laboratory for examination, and the report upon it, by Dr. William Ophüls was as follows:

Dark yellowish red, slightly turbid, thin fluid; no bacteria in coverslips or culture; after sedimentation, the fluid is clear, dark yellow; at the bottom there is a thin layer of red blood corpuscles, and on the surface a thin scum of fat, of which some is free, some enclosed in large cells. The fluid contains a considerable amount of albumen and a little reducing substance (Fehling's test). On addition of acetic acid a white flaky percipitate is formed, which redissolves in an excess of acetic acid. The fluid dissolves several small shreds of fibrin (about 2-3 mm. in diameter) in the incubator in about twenty-four hours. On one glass the fibrin has disappeared completely; in the other there are small remnants left. The fermentation test shows that the reducing substance is sugar and about 1-5 volume of CO_2 is formed.

The patient made an uneventful recovery and left the hospital on March 9th. He was under observation until early in April, having his external wound dressed, (drainage tubes having been employed). On April 1st he was referred back to the Medical Clinic from the Surgical side, because he had developed some edema of the legs. This led to an examination of the urine, and it was found that it now contained 2.2 per cent of sugar. Shortly after that the patient left the city and I have never since seen him. A letter, however, was received from him since this paper was written, bearing date of February 20, 1903, in which he says: "At the time I left San Francisco, April 3, 1902, the wound where the incision was made lacked about three-fourths of an inch of being healed; but it was completely healed by May 1st, and has never discharged since. I went to work in May at my old job of firing and running an engine, and worked at it all summer. During the winter I have been mining. My health is good and has been good ever since I left the hospital, a year ago."

REPORT OF A CASE OF CHRONIC INTERLOBULAR PANCREATITIS, PANCREATIC CALCULI, WITH MULTIPLE CYSTS OF THE PANCREAS.*

By L. W. ALLEN, M. D.

Resident Physician and Surgeon, St. Luke's Hospital, San Francisco.

THE patient, Mrs. K. C., 30 years old, first entered St. Luke's Hospital March 22, 1902, as a patient of Dr. Clarke J. Burnham, giving the following history:

Family—Mother and one sister died of pulmonary tuberculosis.

Previous—Has been delicate since childhood. Rheumatism at 9; miscarriage at 17; pneumonia at 20; metritis and ovaritis at 22; previous to one year ago she had been a drinker of alcoholic stimulants; since then she has not touched liquor at all.

Present—Dates back nearly one year. For the first two or three months patient complained of feeling badly; troubled with nausea, indigestion and general malaise. Then, nine months ago, she suffered from an attack of jaundice, lasting about one week. After this she suffered some from indigestion. Five months ago she had an attack of severe, griping, paroxysmal pains in the epigastrium, lasting for several days. One month afterward she had a similar attack, but added to her epigastric pain she began to have a severe, dull heavy pain in both lumbar regions. This was ushered in by a chill, followed by fever, accompanied by frequent micturition; but very little urine was voided. From this time on she suffered from attacks about every two weeks. The pain left the epigastric area and centered in the lumbar regions, principally on the right side, and gradually extended down toward the pelvis. Patient had pain in the right shoulder all the time, increasing during the attacks of pain below the diaphragm. For the last four months the stools have been clay-colored at times. She has lost fifty pounds in weight during the last year. She has also suffered from hemorrhoids for the past year, and on the day of admission to the hospital she passed a large clot of blood while straining at stool. Anorexia has been present all of the time. She has never noticed any blood in the urine, nor excessive amount of urine after attacks of pain. No history of passing gall or renal calculi.

Examination on Admission—Pulse, 80; respiration, 20; temperature, 98.6°. Fairly well nourished, rather anemic; skin, sallow; conjunctivæ, slightly yellow; tongue, coated. Nothing unusual in lungs, heart or thoracic wall.

Abdominal Inspection—Some fullness in right upper

* Read before the California Academy of Medicine, February 24, 1903.

quadrant. Palpation, right rectus very rigid. Two very painful points found on superficial and deep pressure, one in the epigastrium, just to the right of the median line opposite the tenth interspace, the other directly over the gall bladder. The edge of the liver could be felt one inch below the costal margins, hard and slightly tender. Extending from the tenth rib toward the umbilicus beneath a very tender area, a decided sense of resistance was felt, as of a mass, although on account of the muscular rigidity and tenderness it was not possible to diagnose a tumor from palpation alone. Palpation of the kidneys and pelvic viscera was negative. Percussion—Liver dullness enlarged downward about one inch below free border on right side. Dullness continuous with the liver, and extended across the epigastrium to the left side opposite the sixth interspace, over the painful epigastric area. This dullness also extended from the gall bladder region, triangular shaped, with the apex about one and one-half inches from the umbilicus. Elsewhere the abdomen was moderately tympanitic. Auscultation developed nothing new.

Urine—Amber, acid, 1018; no sugar, slight traces of albumen and bile. Microscopically it showed calcium oxalate crystals, pus cells, granular casts, few red cells.

Stools—No free fat found. They were clay-colored, however.

Blood—Hemoglobin, 75 per cent; reds, 3,600,000; whites, 9200. Differential count, large mononuclear, 8 per cent; small lymphocytes, 21 per cent; eosinophiles, 4 per cent; neutrophiles, 67 per cent.

During her first stay in the hospital her temperature was never higher than 99.6°, and usually was normal. Her pulse varied between 70 and 90. She was put upon a liquid diet, given K I t. i. d. in increasing doses for three weeks. Carlsbad salt 3i q. a. m. Unguentum hydrargyri over the liver. As her bowels moved more frequently the color of the movements changed from white to dark brown, and the tumor in the region of the gall bladder disappeared. With it left the yellow of the conjunctivæ and the bile from the urine. As the urine increased from 20 oz. to 106 oz. the pus in it diminished, though never disappeared. Red blood cells were no longer found, nor were casts. Sugar was never found in her urine at this time. During her stay she had a very severe attack of pain in the left hypochondrium. She suffered considerably from the night sweats, which gradually improved. On leaving the hospital, May 1, 1902, the tenderness over the liver and the area of gall bladder enlargement had entirely disappeared. The digestion was better and the patient seemed on the road to a slow but sure recovery.

After leaving the hospital the patient was better until August. In August, September and October she again had attacks similar to those described above. In August a tumor was to be felt in the right epigastrium; in September it could not be felt, but the abdomen was very tender over this area. In this month very great tenderness developed over the left kidney. In the October attack, about two weeks before re-entering the hospital and three and a half before death, she passed large quantities of urine in which sugar was for the first time discovered, amounting to 2½ per cent, and within four days disappeared entirely. She was now having constant pain in the epigastrium, distress after eating, high fever during the attacks of pain, with almost constant night sweats, and a steady loss in weight.

October 28, 1902, she was readmitted to the hospital for observation and treatment. Patient had been rapidly losing weight, so that her general appearance was one of great emaciation. P., 80; R., 20; T., 100.8°; 4 p. m., P., 80; R., 20; T., 102°. Bowel movements now yellow. Have not been clay-colored for some months. Stools contain bile. Not examined for fat until after the operation, when they were found to contain a little.

Urine—40-90 oz., acid, 1020, no sugar; trace of albumen; no casts, considerable pus.

General Condition—Very emaciated and anemic; no jaundice; lungs, heart and thorax negative.

Abdomen—Area of tenderness and rigidity over right, upper quadrant, mostly in the epigastric half, just to the right of the median line; no dullness in the sides; moderate tympanites over the rest of the abdomen. Liver dullness to free margin of ribs; no enlarged splenic dullness.

Patient complained of constant pain over the area of epigastric dullness. She had exacerbations of pain in the right side, and after her admission she had a very severe attack of pain develop in the left side anteriorly when the muscles there were so rigid and this area so tender that a pyonephrosis with a perinephric abscess was thought to be present in addition to the epigastric trouble. These lumbar pains were always relieved for a time by hot applications.

No tumor could be felt in the epigastrium on account of the extreme rigidity of the abdominal walls, but there was a distinct increase of tension over the most tender area, a space the size of a dollar just to the right of the median line half way between the xiphoid cartilage and the umbilicus. The constant pain over this area became a thing of minor importance to her during the attacks of pain in the lumbar regions, particularly the left.

Her digestive system was very much upset. She vomited at the least provocation. There was a tendency to diarrhea, with blood in the stools.

Course in the Hospital—After a day her temperature came to normal; pulse always between 70 and 80. Leukocyte count on admission, 22,200, dropping to 13,400 in forty-eight hours. Stomach remained upset and she did not gain. Had considerable sweating at night.

On November 3d the pulse rose from 70 to 90, temperature from normal to 101.8°. The leukocytes rose to 26,000, and as she was decidedly losing ground, an exploratory laparotomy was decided upon for a possible chance of relief. At the time of operation we recognized that there were two distinct conditions with which we had to deal. One, a suppurative condition of the kidneys, probably tubercular, involving both organs in all likelihood. The other, some lesion involving the digestive apparatus—stomach, liver,

gall bladder or pancreas. In determining a diagnosis it was difficult to decide how much the temperature and leukocytosis were influenced by the kidney lesion and how much they were due to the epigastric trouble. As the pus in her urine decreased her leukocytosis dropped from 22,200 to 13,000, and the temperature fell to normal. Then, on November 3d, when her temperature rose to 101.8° and the white blood cells to 26,000, there was a large increase in the amount of pus. Did the pyonephrosis have no influence? In which case we must suppose that all the pus cavities had a free drainage and ignore the attacks of pain in the lumbar region, which accompanied these elevations of temperature and leukocytosis. Besides, the variations in the amount of pus in the urine seemed to bear some relation to these changes in temperature and leukocytosis which would lead us to believe that the kidneys did influence their production. At all events this complication made the temperature and leukocyte count of negative value, and threw us, for the determination of our diagnosis of the epigastric lesion, upon the history and the symptoms, subjective and objective.

From these we have intermittent attacks of severe epigastric, colicy pains, accompanied by vomiting, occasionally by jaundice and clay-colored stools; at other times by diarrhea, sweating and fever, always by a progressive emaciation. As a positive guide, the jaundice, clay-colored stools and bile in the urine led directly to some obstruction in the common duct. The gall bladder tumor disappeared when these symptoms disappeared. There was no fever or leukocytosis during this period. This would make the gall bladder tumor of the early history one of retention from the common duct obstruction. The obstruction acted intermittently and had not been present for several months previous to her second entrance to the hospital, her other symptoms all the time continuing. This would suggest choledochus calculi, or it could be attributed to a catarrhal obstruction. It should have also suggested pancreatic calculi. It spoke against malignancy. But the progressive and rapid emaciation, the constant pain and the feeling of resistance as of a tumor beneath the tender epigastric area indicated a tumor of the epigastrium in the region of the pancreas, or pylorus of the stomach. At this time all the symptoms of choledochus calculi, or common duct obstruction, were absent, but the patient was really very much worse. This shut out the gall bladder and the common duct from the diagnosis.

Neither the history nor symptoms were those of a tumor of the pylorus. The question, then, was whether it was a tumor of the pancreas or an abscess of the left lobe of the liver. The physical signs were very similar to those of an abscess of the left lobe, where the pus is very near the surface and causing a circumscribed peritonitis corresponding to her tender epigastric area. It could have developed after the obstruction from an extending cholangitis. She had the diarrhea and sweating with temperature and leukocytosis, but no chills. The sweating, temperature and leukocytosis, however, could all be due to the kidney lesion.

The only tumor of the pancreas considered was a malignant one, on account of the rapid emaciation, together with the constant pain and the resistance as of a tumor at the position of the head of the pancreas. But the jaundice was not permanent, a condition I have always found in cancer of the head of the pancreas; there was no ascites or edema of the lower extremities. The local tenderness was much greater than is usual with cancer of the head of the pancreas. This also excluded the mobility of the tumor as a diagnostic factor. Cysts of the pancreas and pancreatic calculi were not mentioned. Those few cysts I had had the fortune to see had all presented below the stomach and had been non-inflammatory, with no marked emaciation, digestive disturbance of any severity, or jaundice. There was no thought of chronic pancreatitis, or pancreatic calculi.

Thus no very positive diagnosis was made, but an exploratory laparotomy was thought to be indicated. On November 4, 1902, we performed a laparotomy, incising over the area of epigastric tenderness just to the right of the median line. Two cysts of the pancreas were opened—one, the size of an orange, presenting between the lesser curvature of the stomach and the left lobe of the liver, in which two stones were found; the other, the size of a walnut, behind the first one and apparently having no connection with it. They were both aspirated, drained and packed, the posterior one through the anterior, which was in turn sutured to the abdominal wall. The patient was returned to her bed as soon as possible. She grew continually and rapidly worse after the operation. She was able to retain but little in her stomach, and her bowels moved continuously, so that it became impossible to nourish her. She passed but little urine during the first few days, and died on the fifth day after operation without signs of peritonitis, but with her former symptoms exaggerated. There was but little discharge from the cyst and the skin about the wound was not irritated. The fluid removed from the cysts contained no pancreatic ferments and was sterile. The stones contained calcium salts.

AUTOPSY.

This had to be done through the wound, and hastily. There was no evidence of peritonitis or leakage. No fat digestion in mesentery or surroundings. Then pancreas, with its cysts, the gall bladder, cystic, common and portion of the hepatic ducts, with pyloric end of stomach and about four inches of the duodenum were removed in mass. The autopsy developed the fact that there was no left kidney, so that all her intense pain in the left lumbar region was most probably from the calculi in the pancreas, a symptom given by some as differentiating pancreatic from choledochus calculi. The right kidney was half again as large as normal and contained numerous abscesses the size of chestnuts in its cortex. The specimen removed showed the cystic, hepatic and common ducts patent. The gall bladder walls were slightly thickened, but no calculi were found in the bladder. The pancreas was greatly atrophied and calcareous particles were found throughout its duct. At the aurifice of Wirsung's duct was a stone the size of a small marble which almost entirely obstructed its lumen and at the same time partially filled the opening from the duct into a third cyst, the size of a walnut, not felt at the time of operation because it was not under tension, as the opening was still patent. The other cysts were entirely separated from the duct, at the nearest point by only one-eighth of an inch. These conditions were interesting as showing the history of some cyst formations. The large one anteriorly, opened at the time of operation, in which two stones were found,

had evidently been produced by the stones in the duct; the stones passing through into it, and finally the cyst closing behind them. It was a cyst of long formation, as no digestive ferments were found in it. The early jaundice was produced either by a preliminary swelling in the head of the pancreas, or, as the common duct passed directly through it; the passing of a pancreatic stone into the ampulla of Vater; or thirdly, by a biliary stone in the common duct, which had made its exit into the intestine. This last supposition is quite improbable, as there were no other stones in the gall bladder, or evidence of any having passed through its duct either in the history or autopsy findings.

The microscopical report, for which I am indebted to Dr. Mary Halton, pathologist of St. Luke's Hospital, shows an advanced stage of interlobular pancreatitis, with the Islands of Langerhans still well preserved, verifying Opie's observations that in this type the appearance of sugar in the urine occurs only at the very last stages of the disease.

CHEMICAL PATHOLOGY OF PANCREATIC DISEASE, WITH REFERENCE TO DIAGNOSIS.*

By PHILIP KING BROWN, M. D.

THE IMPORTANCE of the pancreas in the digestive process is so great that it seems strange that we should know so little of its pathological disturbances during life, and that our means of diagnosis of slight disturbances should be so limited. The attention which the organ and its functions has attracted in the last decade, has been productive of a number of extremely significant points. It is probable that there will be constantly new light thrown upon the function of the organ, and the end result of its activity, as found in the excretions, will enable us to determine the condition of the organ more accurately than at present. We are chiefly interested now in determining such conditions of the pancreas as result from tumors, cysts, calculi, and the inflammatory or degenerative processes due so frequently to primary disturbances in the gall bladder and occulsion of the common duct, and to passage of bile and infectious material into the pancreatic duct. I shall not concern myself with giving you the symptoms of these various conditions, but desire to call attention to such means as we have at hand of determining the activity of the gland, and of drawing conclusions in regard to its condition by examination of the excretions, by blood examination and by therapeutic measures. For it is certain that the functional activity of the gland can be definitely influenced by certain chemical stimuli, as for instance, the administration of hydrochloric acid, the extracts of pancreas itself, and by the administration of fat foods, and definite inferences may be drawn by the results obtained through these measures.

What concern us chiefly are the alterations in blood, urine and feces, and what may be learned from examination of the contents of cysts of the organ or fistulous discharges. In regard to the blood examination it is clear from the cases reported from the Massachusetts General Hospital, and by Opie in the Johns Hopkins *Bulletin,* January, 1901, that hemorrhagic pancreatitis causes a distinct leukocytosis. The relation of the leukocyte increase to the disturbance of the pancreas may be of little diagnostic value, because local peritonitis in the omental bursa will cause the same leukocytosis and a very strikingly similar pain, as will also perforating ulcer of the stomach, particularly of the posterior wall. Suppurative cholecystitis occurring without jaundice or tumor may complicate the diagnosis somewhat. Cysts and tumors of the pancreas are not apt to make quantitative blood changes, except in the anemia which may result, and except there be actual encroachment upon fundamental parts of the pancreas, either directly or by pressure, when we have the most significant clinical change, the appearance of glycosuria, of which I shall speak more fully later. With the occurrence of glycosuria, and of particular value in the diagnosis of the extreme conditions resulting from it, notably the diabetic coma, the methods of examination of the blood proposed by Williamson and Bremer are of extreme importance. These methods consist in utilizing the difference in the affinity to analine dyes of diabetic and nondiabetic blood. It has been pretty definitely settled that the reaction resulting from the addition of a weak alkaline solution of methylene-blue to the blood, noted by Williamson of Manchester, depends upon the presence of an increased quantity of sugar. Hyperglycemic blood decolorizes the solution on boiling, while normal blood does not. Bremer's test, also proposed as a method of determining hyperglycemia, has not been shown of definite value, because of the probability of its reacting to other substances than sugar. Bremer's method consists of staining a thick spread blood film heated to 140° C. with a 1 per cent aqueous solution of congo-red. Normal blood looks yellow to the eye, whereas diabetic blood looks greenish-brown. The reactions have been studied carefully by Futcher of Johns Hopkins, who arrives at the conclusion that they "are interesting but of no great diagnostic importance." Bremer's claim that the reaction persisted after the sugar disappeared from the urine was not substantiated. This was also

* Read before the San Francisco County Medical Society, March 10, 1903.

true, in one case at least, of Williamson's test, but no reaction at all occurred in another, although over 200 gms. of sugar were eliminated by the patient that day.

The urine in diseases of the pancreas is an index to us of the functional activity of the gland, not alone in its relation to the burning of sugar in the body, but equally in its relation to the splitting of fats. Langerhans has shown that the disseminated fat necrosis accompanying acute pancreatitis, and certain other conditions of the organ, is due to a fat-splitting ferment, and Flexner has shown the presence of this ferment in the necrotic areas. It remained for Opie, following the same line of thought, to trace the elimination of this fat-splitting ferment, and in May, 1902, he reports a case in which it was found present in the urine of a fatal case of diabetes from acute pancreatitis. The elimination of the fat splitting ferment by the urine is taken as evidence of its occurrence in this disease in the circulation. The method used to determine its presence was proposed by Castle and Loevenhart in the *American Chemical Journal,* Vol. 24, No. 6. Ethylbutyrate, when acted upon by the ferment, is decomposed with the formation of butyric acid, whose presence is determined in the urine previously neutralized with potassium hydroxide by the addition of litmus solution. The control test is conducted by boiling the urine in order to destroy the ferment. Both specimens are subjected to a temperature of 37° C. for 24 hours.

An increase in *indican* in the urine invariably accompanies all types of pancreatic disease in which the activity of the gland is in the least affected. This is due to the putrefactive changes brought about in the proteids, and indican is apt to increase as the activity of the pancreas grows less, so that in cases where the pancreatic duct is obstructed, indican appears early and increases steadily to a marked degree, unless the obstruction is removed. The excessive proteid diet which is resorted to in order to satisfy hunger in certain advanced cases, adds greatly to the opportunity for putrefactive changes. With the increase in indican there is almost constantly a corresponding increase in the ethereal sulphates.

The presence of *fat* in the urine, as in the blood, is of little interest in the diagnosis of pancreatic disease, because it is present in various cachetic conditions, notably gangrene and pyemia, and in infections of the bone marrow after fractures, in chronic heart and liver disorders and even after the excessive use of fats internally or by inunction. The presence of fat acids long since noted in the urine of cases of pancreatic disease by von Jaksch is readily accounted for by Opie's discovery in the urine of a fat-splitting ferment. The fat acids may appear as the calcium and magnesium salts of the higher acids, and their crystalized appearance is said to confuse them with tyrosin, which they resemble somewhat.

The presence of oxybutyric acid in the urine, a late symptom of both pancreatic glycosuria and diabetes of other than pancreatic origin, is an indication that alkali is being removed from the body in excessive quantity, and to avoid or postpone acid intoxication must be supplied in some way. Other organic acids are occasionally present in the urine in advanced cases of glycosuria from whatever cause, but not in sufficient quantity or with sufficient regularity to be of importance. The chief one of these is diacetic acid, which rarely amounts to more than 10 per cent of the organic acid present.

The chief source of alkali used for the neutralization of the organic acids is ammonia in the formation of which both cell metabolism in the body and decomposition of proteids from the food take part. The ammonia so used is ordinarily eliminated in large part as urea, but in this acid intoxication it neutralizes the pathological acids as far as it can, and they are eliminated in combination as ammonium salts. It has recently been shown that the administration of large quantities of bicarbonate of soda in advanced states of acid intoxication has a striking power of preserving the *native alkali,* the sodium and potassium salts of the blood, which are encroached upon by the organic acids, thus relieving the condition in the same way that ammonia does.

The presence of sugar in the urine of certain persons has been definitely known since the publication of its discovery by Dobson, an English physician, over a hundred years ago. It is probable that centuries before that the fact of a peculiar sweetness to some urines was a matter of note, although the cause of this was not understood.

Since the memorable work on the pancreas of von Mehring and Minkowski, in 1890, it has been definitely proven that this organ plays a very important part in most cases of glycosuria, and it is even contended by some that as distinctly distant a condition as the glycosuria of Claude Bernhard, caused by puncture of the floor of the fourth ventricle in some way is associated with nerve changes in this organ.

Von Mehring and Minkowski found that extirpation of the pancreas in a large number of dogs was rapidly followed by all the symptoms of diabetes, the sugar elimination reaching its height in twenty-four to forty-eight hours. They further found that if a very small part of the pancreas were left behind, glycosuria did not result, and still further that if the pancreas were transplanted, and then later a large part of it removed, glycosuria did not result, unless atrophy

of the remaining part took place. A further striking phenomenon was that ligation of the pancreatic duct cutting off the supply of pancreatic juice from the intestine did not cause glycosuria, so long as there were no changes in the pancreas. This has led to the theory that the pancreas normally manufactures an internal secretion, something as the thyroid or suprarenal glands do, and that this ferment is necessary to the splitting of sugar. However this may be, the attention of the pathologists has been centered on the pancreas in all cases of diabetes and the investigations of Lagnesse, Schäfer, Diamare, Ssobolew, Opie, Wright, Herter and others, go to show a greater and greater percentage of cases of diabetes in which some lesions have been found in the islands of Langerhans, and the theory of their connection with glycosuria is strengthened greatly by the fact that no instance is on record of the islands being materially affected without there being an accompanying glycosuria.

The examination of the feces offers us both chemical and microscopical evidence of a diminution or absence of the pancreatic fluid. For clinical purposes microscopic examination is of the greater use, because certain of the changes are very easily seen and because chemical methods for fecal examinations are very complex.

The digestive power of the pancreatic juice is dependent upon at least three ferments, a fat-splitting, a starch-converting and a peptonizing ferment, known respectively as steapsin, amylopsin and trypsin, and the disturbances due to the diminution in any one or all of these ferments have definite effects upon the food taken into the stomach. The failure of the fat-splitting ferment, whose function is the emulsification of fats in which it co-operates with bile, and the splitting of neutral fats into fatty acids and glycerin, causes an increase of neutral fat in the feces. As a certain part of the fat acid is absorbed as such, recombining with the glycerin, the failure of the fat-splitting ferment deprives the system of a certain amount of one of the necessary components of food. The total amount of neutral fat eliminated may be much diminished by the fat-splitting action of bacteria in the intestinal tract.

The occurrence of a large discharge of fat with the feces, coloring it a dirty gray and giving it a slimy, glistening appearance, is not necessarily due alone to pancreatic disease. An accompanying jaundice suggests the failure of bile as the cause, but does not exclude coexistant disturbance of the pancreas. Increased fat acids do not help us to distinguish pancreatic from bile disturbances, but the presence of an excessive amount of neutral fat with diminished fat acids, points distinctly to a defective pancreatic secretion. This is an extremely significant point, and one in which accurate determinations of the fat components may be the means of determining a pancreatic lesion. It is important to remember that the presence of a normal amount of fat acid which may be produced by bacterial action, does not exclude pancreatic disease, and it is often necessary to weigh carefully the evidence from examination of the feces of an activity or failure of two of the pancreatic ferments in distinguishing disease of the pancreas from a failure of the functional activity of bile.

The failure of proteid-splitting action gives us in the feces one of the most striking results of pancreatic disease, and one of the most easily recognized, the appearance of large numbers of particles of undigested meat fibers and particles of casein. As proteid digestion is carried on in the stomach to a considerable extent, without the aid of the pancreatic ferment, it is probable before undigested proteids are present to a marked degree in the stools that the amount ingested should be much increased. When the stomach is somewhat taxed, particularly when the hunger symptoms begin, the failure of the pancreatic function is brought strongly into evidence. The impaired digestion of carbo-hydrate food, from diminution or failure of amylopsin, is probably one of the commonest causes for intestinal flatulence, and an evidence of fermentation in the feces is apparent. The resulting alcoholic intoxication or distinct poisoning from the organic acids, are causative features in the headache and drowsiness from which patients in this condition suffer. Of the glycosuria, which results from the absence of the sugar splitting ferment, I have already spoken.

The examination of fluid removed from cysts of or adjoining the pancreas is interesting, but may be of little or no value. Inasmuch as such cysts may be of immense size it seems desirable to remove the fluid by tapping in the early stages of operation, and that gives us the chance of examining it under favorable conditions. Cysts of the pancreas may not reveal a trace of any of the active ferments of that organ. Gussenbauer reports a case in which this was true. A fistula persisted and the discharged fluid was thoroughly examined, also with negative result. The fact of a pancreatic origin of the cyst was confirmed at autopsy. The presence of a starch-splitting ferment in cystic fluid has no influence in determining the origin of the fluid, because the ferment is present in various forms of cystic tumors found in the abdomen. Any or all the ferments may be present also in the pseudo-cysts or para-pancreatic cysts which arise outside but adjoining the pancreas from disease or injury to it.

Hydatids of the pancreas are practically unknown and the contents of a hydatid cyst are rarely hemorrhagic, whereas pancreatic cysts most always contain a brownish pigment from

altered blood coming from the hemorrhages so frequently associated with the pathologic conditions of the pancreas.

RÉSUMÉ.

Glycosuria as a symptom of pancreatic disease seems to be definitely associated with pathologic conditions in the islands of Langerhans, and is a development in many cases of the *later* periods of the disease. Processes involving the islands of Langerhans primarily do occur, and thus far no case has been reported in which such a process is not accompanied by glycosuria, although glycosuria *does* occur in cases in which the islands have been found unaffected at post mortem.

Steatorrhea is a symptom both of failure of the bile and of the pancreatic fluid. A failure of the bile to enter the intestine has a distinct influence in lessening the flow of pancreatic fluid on account of the stimulation which bile is to the activity of the pancreas. Further occlusions of the lower end of the common duct shut off the pancreatic fluid, and if bile is forced into the pancreatic duct in consequence, acute inflammatory disturbances may result in the gland. The steatorrhea of primary pancreatic disease in which there is a diminution or absence of pancreatic secretion is marked by an excessive increase in the neutral fats, reaching even 60 per cent of the total excretion, instead of the normal, of about 10 per cent to 15 per cent, and further by a striking diminution of fatty acids. With the steatorrhea is microscopic evidence of a failure of proteid digestion, shown by the finding of muscle fibers and casein coagula.

Fermentative and excessive putrefactive changes in the feces are evident to the eye and nose.

Indican is present in increased amount in the urine, as are also the ethereal sulphates.

The methylene blue test of Williamson may be used to determine a hyperglycemia in a suspected case of diabetic coma, when means of obtaining urine are not at hand. Bremer's test is less useful in the same condition.

Lipuria and lipemia are interesting, but not pathognomonic symptoms.

The presence of a fat-splitting ferment in the urine might be of extreme value in fixing a pancreatic connection to a glycosuria or to an acute disturbance in the epigastrium.

A CASE OF PANCREATIC CYST.*

By ELMER E. KELLY, M. D.

THE PANCREAS is an organ so deeply hidden away in the abdominal cavity and so hedged about with delicate anatomical structures that until recent years it has been considered a *terra incognito* by the abdominal surgeon. But with the advent of aseptic surgery the emboldened surgeon has explored every tissue and organ until no unknown quarter remains.

Even yet, however, there are organs and structures that have so rarely been removed or operated upon that every case deserves to be reported that the general store of knowledge may be increased and the statistical value of the various operations obtained. For this reason I have thought it worth while to make a record of the following case of pancreatic cyst:

G. W. C., aged 41, appeared at my office November 14, 1902, and from him I gleaned the following history:

Ten years ago the patient was suddenly attacked by excruciating pain in the epigastric region, accompanied by vomiting, after having eaten heartily of pork sausages. His physician thought the probable cause of the disturbance was due to the meat he had eaten.

The attack lasted thirty-six hours and by other physicians was diagnosed to be due to gall stones. There was no icterus and no lack of bile noticed in the patient's stools. An interval of six months passed before another attack, but three months later a third attack occurred and followed pretty much the same course as the previous ones, except that the patient lost flesh rapidly and became greatly debilitated. Four years after the initial attack he came to San Francisco and was treated for kidney disease, with marked improvement. Six months later he suffered a severe and more prolonged attack of pain, noticeable especially after eating. For the next twelve or fourteen months he was able to attend to his business, though he was not at all well. Then followed a series of severe though short attacks of pain which were only relieved by the use of morphine. At this time the malady was diagnosed as inflammation of the bowels and long shreds resembling mucous membrane were passed with the stools. Various plans of treatment were followed without material benefit. In 1898 he had a very severe attack lasting eleven days, during which, for the first time, he became deeply jaundiced, which continued for seven days. A large number of gall stones were passed in the stools, after which he was relieved of his pains. For one year he remained free from gastric pain and irritation.

Upon the 17th of August, 1902, he was again attacked by his old enemy, the jaundice reappeared, and after a few days of intense suffering, more gall stones were passed per rectum. The epigastric pains became more intense, radiating over the entire abdomen. Again the stools showed the presence of long shreds resembling mucous membrane, and his physician assured him that he was passing portions of the mucous lining of his bowels. Four weeks after the beginning of the attack he noticed his abdomen increasing in size, especially noticeable in the upper portion, in the epigastric region. This enlargement was accompanied by dyspepsia and inability to lie down flat in the bed. Pain invariably followed eating or drinking, and emaciation became quite marked, his weight being reduced from 210 to 138 pounds. Patient did not notice that one kind of food caused

* Read before the San Francisco County Medical Society, March 10, 1903.

more pain than another. The bowels were constipated at times and at others quite free.

Physical examination at the time of his first visit to me was as follows: Inspection showed marked emaciation; skin, a dark brownish, yellow hue; slight icteric suffusion of the conjunctivæ; muscles soft and flabby; no edema of the extremities. Pronounced dyspepsia upon exertion was present. The heart and lungs presented no abnormal physical signs. The abdomen showed a large rounded protuberance in the epigastric region, which pulsated synchronously with abdominal aorta. The enlargement upon palpation was firm and resistant, having the feeling of a very tense cyst, moving slightly with respiration.

The tumor was flat upon percussion, except slight resonance over the left side. The dullness in the middle line and towards the right side was continuous with the liver dullness, but not reaching as far outward as would have been expected if due to enlargement of that organ. Below the tumor tympanitic resonance was present. Examination of the urine was negative, except for a slight trace of albumen. The stools were light gray in color, containing bile and only slight evidence of undigested fat. The examination of the blood showed 60 per cent of hemoglobin and a slight leukocytosis. The patient was seen in consultation by Drs. Stillman, Frisbie and Dozier and a diagnosis of pancreatic cyst was made and operation advised.

Three days later, with the assistance of Drs. Frisbie and Dozier, the abdomen was opened in the median line. A large tumor presented, pushing before it the stomach and transverse colon. The peritoneum of the gastro-colic omentum was torn through and the edges stitched to the tumor. A trocar was thrust into the cyst and four quarts of greenish-colored, muddy fluid evacuated. The cyst also contained a large quantity of dark-colored detritus, with small particles of sandy substance, resembling softened gall stones. The cyst wall was attached to the abdominal peritoneum and drained by two large rubber drainage tubes. The cyst was explored to find if any large pancreatic calculi were present. It was found that the cyst involved the body and tail of the organ; the head was apparently not cystic, and we concluded that the head of the pancreas had a separate duct to convey its secretion to the intestine, and that this explained the absence of undigested fat in the patient's stools. The gall bladder being filled with concretions, a separate opening was made, the gall bladder stitched to the parietal peritoneum and a drainage tube inserted after evacuating the stones. Drainage was very free from both gall bladder and cyst cavity. The patient made an uninterrupted recovery, the gall bladder ceasing to drain in three weeks and the cyst finally closing about six weeks after the operation. The fluid was proven to be pancreatic fluid. Analysis of the contents of the cyst showed it to be purely a retention cyst of some considerable duration. I am of the opinion that the cyst was due to obstruction of the pancreatic duct by gall stones where it joins the common bile duct.

Interesting features of this case were those connected with the differential diagnosis. Its location limited the diagnosis of tumors of the stomach, lesser mentum, liver, pancreas or great vessels. Tumors of the stomach were excluded by the presence of resonance in front, above and toward the left side. From disease of the liver it was differentiated by the stomach resonance in front of the tumor, by the colon resonance on the right and the palpable edge of the liver and the very limited movement of the growth with respiration. Its central position precluded hydronephrosis, and the expansile pulsation of aneurysm was absent. Positive factors pointing to the pancreas were the colicky pains in the gastric region, following ingestion of food or drink; the immobility of the tumor; the transmitted pulsation; its median position in the abdominal cavity; the evidence of faulty fat digestion, shown by the stools, and the rounded outline of the growth indicating some organ possessing a strong capsule expanded by hydrostatic pressure.

TREATMENT OF HYDROCELE BY EVERSION OF THE TUNICA VAGINALIS (LONGUET'S METHOD).*

By DUDLEY TAIT, M. D.

SOUND therapy is contingent upon precision in diagnosis. A judicious surgical intervention should be preceded by or lead to a positive knowledge of the pathologic conditions present. Hence, the rapid and well-nigh total abandonment, in all branches of surgery, of blind methods of treatment and their supplantation by open precedures. Hydrocele was one of the last ramparts to capitulate, leaving perhaps in its trail a few timid camp followers, inert slaves of habit.

In a former communication, presented November 26, 1900, to the California Academy of Medicine, I reviewed the so-called radical methods of treating hydrocele (injection, drainage and partial excision), showing the great frequency of recurrences and the numerous risks incurred in cases thus treated.

Treatment by the injection of irritating fluids with

* Read before the Medical Society of the State of California at the annual meeting held in San Francisco, April 14 to 17, 1902.

the purpose of producing adhesive inflammation between the layers of the serosa is described by English and American authors as a radical method, notwithstanding the large proportion of relapses and the numerous and serious complications following its use. Authors will advocate this plan of treatment which substitutes for a benign affection, a marked, and occasionally uncontrollable, attack of orchi-epididymitis. It is astounding to what extraordinary, and in many cases inconsistent, limitations the injection method has been carried, and no more conclusive proof is required to show its inefficiency than the interminable list of drugs and other substances which have been employed for this purpose. Nothing more unsurgical and less in accord with modern expeditious and clear technique could be imagined. The severity of total excision will always militate against its adoption as a procedure of choice in the common forms of hydrocele. In certain sclerosed, calcareous, or tuberculous conditions, total excision may prove of inestimable value.

In the present brief note, I desire once more to call attention to the perfected method of everting the tunica vaginalis and present a few data relating to the immediate effects and late results of this mode of treating hydrocele.

In eversion of the tunica vaginalis, the pariental serosa is retained and turned inside out, thus destroying the secreting serous sac. The secreting surface becomes external, *i. e.,* in contact with the loose connective tissue, and the secretion is absorbed by said connective tissue.

The everted serosa retracts rapidly. Eversion of the tunica vaginalis by Longuet's method consists essentially in the turning inside out of the cellulo-fibro-vaginal layers, without decortication or hemostasis; the testicle is transposed.

The operation is performed as follows: A transverse fold is taken up over the hydrocele and cut with the scissors down to the serosa, which is immediately cut in a like manner. Neither the superficial nor the deep incision should exceed 3.5 cm. The testicle is then drawn out, upward and forward, as much as possible, the scrotum being at the same time pulled in the opposite direction by the assistant. If this step is properly carried out, the tunico-vaginalis and overlying fibro-cellular tissues will retract, in the direction of the cord, and turn inside out.

The cut edges of the serosa are now stitched to the connective tissue of the cord, behind and above the testicle, carefully avoiding injury or strangulation of the cord. This stitch, either continuous or purse string, may be rapidly made by using the Reverdin needle. Ordinary catgut No. 1 suffices. The testicle is not replaced in its original bed, which has, in great part, been obliterated through the retraction of the serosa and fibro-cellular layer. Consequently a new bed is made for it. This is done by inserting the two index fingers into the connective tissue at the middle of the inner lip of the incision to a depth of about 3 cm. and then drawing them apart 4 to 5 cm. The testicle is now placed in the resulting new cavity, internal to and parallel with the old cavity. The testicle is thus slightly twisted on its axis, not being in normal anteversion, but in retroversion. The position of the testicle may be defined as retro-lateral version. (a) The external wound is now closed with three or four metallic sutures, or staples (Michel). The most satisfactory dressing is composed of sterile gauze and a snug fitting suspensory. Under ordinary circumstances, the operation is completed within three or four minutes. Longuet frequently employs but two minutes. The operation is almost bloodless. In performing eversion, several minor points deserve consideration.

First—Local anesthesia will prove adequate in most all cases. It must be remembered, however, that cocaine operations frequently exceed in duration those done under general or spinal anesthesia. Furthermore, infiltration must be done in two stages: first the skin, then the serosa. If the infiltration is not limited to the external surgical layer of the scrotum (skin and dartos), the operator will, upon cutting down, be confused by a series of bullæ distending the connective tissue and obscuring the field of operation.

Second—A certain amount of training is required to avoid causing pain while holding the testicle. An excellent plan is to allow the testis to rest on the flexor surface of the first and second fingers, the cord passing between them.

Third—The making of a new cavity in the connective tissue is accomplished by two or three rapid strokes of the fingers; no hemorrhage occurs.

Fourth—In large hydroceles, partial excision of the serosa was at first advised; subsequent experience showed this to be absolutely unnecessary; the tunica always retracts within a few days.

Fifth—The Michel metallic sutures or staples are especially useful upon the scrotum. I generally remove them on the third day.

It is especially in its immediate effects that eversion of the tunica-vaginalis differs from all other radical methods of treatment. The local reaction is almost nil; a slight edema of the dependent portion of the scrotum occurs in about 50 per cent of cases, and is due partly to operative traumatism, partly to the infiltration of the loose cellular tissue by the secretion of the serosa. This condition, however, rapidly ceases. Within a few hours after the operation, palpation does not elicit more than the usual testicular sensitiveness. Consequently, the patient may resume work almost immediately. Longuet treats hydrocele cases in the ambulatory clinic. The

(a) Six weeks prior to Longuet's publication, I devised a simpler plan of making a new bed for the testicle, by working with the index fingers in the connective tissue, immediately behind and beneath the sutured serosa, on the median line, at the site of the former bed. In this manner the testicle is less dislocated than in Longuet's method.

patient, fitted with a snug suspensory, habitually walked away from the clinic one or two hours after the operation, returning on the fourth or fifth day, when he is discharged.

Eversion of the tunica vaginalis is singularly free from complications. In July, 1901, Longuet stated in a personal interview that after careful observation, extending over a period of two years, he had failed to find either atrophy or the slightest functional disturbance of the testicle. Not a single relapse was noted by him in his large number of cases.

The testicle may, in a small percentage of cases, remain partially immobilized during a few weeks; but, in the majority of instances, it is found freely movable as early as the sixth week. Several months subsequent to operation, palpation generally shows the retracted serosa at the upper pole of the testis; it then resembles in consistence, and partly in shape, a sclerosed epididymis. This fact was well illustrated in one of my patients, who was examined by a physician two months after a combined total epididymectomy and eversion of tunica, and informed of the existence of a tuberculous nodule involving the globus major of the epididymis.

Indications: Longuet's method will prove of signal service, first, in the majority of the numerous varieties of hydrocele and cysts of the cord; second, in cases where the surgeon desires to explore the tunica, testis or epididymis; third, in case of hernia with hydrocele; fourth, in conjunction with various operative procedures upon the testis or veins of the cord, and fifth, in acute vaginalitis due to gonorrheal epididymitis.

Unlike total excision, eversion by Longuet's method does not require any special surgical training, and should prove acceptable to the most pusillanimous patient.

I have used eversion in eight cases, three of which were reported in the communication previously alluded to. The remaining five cases concern patients of various ages; fourteen years being the youngest, sixty-eight the oldest. In two cases, the sac contained about 400 cc. In two other cases, eversion was done in conjunction with epididymectomy and resection of the anterior group of varicose veins. No complications were noted in any case. Two patients were permitted to leave the city forty-eight hours after the operation, and required no further medical attendance, the metallic sutures having been removed. All of these cases have been followed and not the slightest ill-effect or sign of recurrence noted.

Conclusions: Compared with other radical methods, eversion by Longuet's methods excels in simplicity, rapidity and safety. Its immediate effects are seldom sufficiently marked to confine the patient to bed. The late results are perfect.

Historical data: Controversy regarding questions of priority is generally uninteresting and sterile of positive results. Nevertheless, the prevailing complicated mode of calling operative procedures by their authors' names calls for reasonable accuracy in bibliographical research. The operation of eversion of the tunica vaginalis is known and described in several German and Eastern journals as "Winkleman's operation." This author's first publication appeared in the *Centralblatt f. Chirugie,* November 5, 1898, *i. e.* three years after both Doyen and Jaboulay had published their extensive observations regarding the same procedure, and one year after the question had been discussed at the French Annual Surgical Congress. Winkleman further displays his disregard for bibliographic research by attributing to Von Bergmann the operation of total excision of the tunica vaginalis, which was performed by Celsus, in the first century, and subsequently by Albucassis, Fallopius, Dupuytren and Bardeleben.

FINAL RESULT OF A LORENZ OPERATION FOR CONGENITAL LUXATION OF THE HIP.

(*Continued from page 134.*)

limp nor lordosis, and the patient can stand erect on the luxated leg without sagging of the pelvis.

Dr. Rixford said that this was the second case in which he had done the Lorenz operation of bloodless reposition, and that in the first case plaster spica was worn for three months only. The operation was done in November, 1899, and in March, 1901, a year and a half afterwards, Dr. Bessak of Forbestown was kind enough to examine the child and wrote that there was no shortening; that the child walked without limp and that he could not have determined by her gait which limb had been luxated.

Affiliation of county societies continues. Since the last number of the JOURNAL was issued the following named societies have become members of the State Society: Santa Barbara, Placer, San Joaquin, San Diego, Marin, Humboldt, Orange and Alameda.

Calcium Salts for Nervous Diseases.—Jacques Loeb of the State University Department of Biology claims to have discovered that muscular and nervous diseases, such as St. Vitus' dance, paralysis agitans, locomotor ataxia, and insomnia, can be cured by the administration of calcium salts. His conclusion is that the presence of calcium salts in the muscles prevents their twitching, and that their absence leads to the various nervous disturbances mentioned; hence the administration of calcium salts as the remedial measure.

CONSERVATISM IN GYNECOLOGICAL SURGERY.*

By W. F. B. WAKEFIELD, M. D.
Professor Gynecology, Oakland College of Medicine and Surgery.

DESIRING to know the general trend of surgical opinion regarding this important subject, I have written to about one hundred of the leading gynecologists of this country, and have been favored with replies from a great many of them, for the courtesy of which I take this opportunity to thank them. The somewhat rambling remarks which follow will be based on the statistics and information thus gleaned, as well as on the material collected from a mass of journalistic and text-book literature, added to a personal experience with a considerable number of cases.

Since William M. Polk, a decade and a half ago, directed the attention of gynecological surgeons to the possibility of conservative procedures in pelvic surgery, the subject has been more or less constantly under discussion; and the persistency of treatment which has been accorded this subject is evidence of its importance.

A rational conservatism must form the cornerstone of all high-class surgery; an intelligent attempt to save structure and function, whenever possible, is demanded of every conscientious surgeon. Nature and experience have thrown around conservative effort more or less well defined limitations; nevertheless there remains for it a wide scope of usefulness, and the failure to apply it, where practicable, is little short of crime. The senselessly destructive work which may constantly be seen in our operating rooms is, in the highest degree, pernicious, and lacks all the elements of good surgery.

Four things stand out prominently as having militated against a more general application of conservative procedures in this branch of surgery, viz:

1. Adherence to traditional methods of operating.
2. The greater technical ease attending radical work.
3. The fear of secondary operations.
4. Misdirected effort along conservative lines.

ADHERENCE TO TRADITIONAL METHODS OF OPERATING.

Past training, as well as observation of the practice of many surgeons at the present time, has induced, in the minds of many, the belief that so-called "cystic" and "cirrhotic" ovaries are diseased beyond hope of repair; that they produce all kinds of extravagant symptoms; that they menace the future welfare of the patient, and that they should be removed. As Frank R. Oastler (1) aptly remarks, in a splendid article on conservatism read before the Roosevelt Hospital Alumni Association a year ago, "How many times a year do we see so-called 'cystic ovaries' snatched out without a thought and displayed in triumph before a more or less admiring audience!" and many of those constituting the "admiring audience" go and do likewise, backed by much precedence to establish their right in so doing. Further, Howard Kelly (2) says:

"Cirrhosis of the ovary" is still another much abused term, used even yet to describe the product of a chronic inflammation of the ovary which does not exist as a pathological entity. The so-called cirrhotic ovaries are simply contracted hard bodies, for the most part the result of a protracted malnutrition of the organ, often due to displacement and surrounding adhesions binding it down and cutting off its circulation.

THE GREATER TECHNICAL EASE ATTENDING RADICAL WORK.

Excepting a simple exploratory incision, and possibly ventro-suspension of the uterus, there is no more simple procedure in abdominal work than an uncomplicated salpingo-oophorectomy as it is usually done by pulling the tube and ovary up together and transfixing and tying them off in a bunch. On the other hand, the separation of diseased tissue from its surroundings—as in resection of ovarian cysts or cystic portions of the ovary, stitching up the necessary rent made in that organ; or in resection or amputation of a portion of diseased tube, uniting the serous and mucous coats of same—entails considerable patient, plastic work. And, oftentimes, I am sorry to say, surgeons perform a salpingo-oophorectomy in preference to doing conservative work because of its greater ease of performance, forgetting, alike, the injustice they are doing their patient, and the bad example they are setting to onlookers.

THE FEAR OF SECONDARY OPERATIONS.

Experience has not proven the fear of secondary operations well founded, as the necessity for a secondary operation occurs but seldom when good judgment is used in the original work. Moreover, experience shows that the occasional necessity for a secondary operation does not entail increased mortality risk. These facts being established, where is the vindication for unsexing nineteen women in order that one be saved the inconvenience of a secondary operation? Polk (3) places the necessity for secondary operations at 5 per cent. Hunter Robb (4) in a series of one hundred conservative operations has had to perform only one secondary operation. In my own cases I have only had to do one secondary operation, and that a case in which I drained an acute pelvic abscess *per vaginam* and subsequently had to do a laparotomy to remove the diseased tube.

MISDIRECTED EFFORT ALONG CONSERVATIVE LINES.

Oftentimes surgeons have tried conservative work with disappointing results and then have an-

athemetized the whole procedure as irrational, thereby deterring others from making the attempt. The trouble is sometimes due to our own lack of proper discrimination in the selection of our cases, and we blame our failures to the conservatism rather than to our abuse or wrong use of same. Perhaps we have had the misfortune to hit upon one or two consecutive cases in which there dwelt a slumbering streptococcic infection, or, perchance, one or two of our cases become infected with gonorrhea subsequent to our operation and come to us a few months later with the remaining tube diseased and we unjustly blame ourselves for our conservative work. These are simply illustrative causes for failure. Results are often influenced by many things over which we have no control, and for the occurrence of which we have no right to blame ourselves. Conservative work done on selected private cases must necessarily yield better results than the same work done on the cases that come to our charity hospitals.

I will briefly direct your attention to practical conservative work under four heads:

1. Vaginal drainage for pelvic abscesses, septic edema and hematocele.
2. Conservative operations on the uterus.
3. Conservative operations on the ovaries.
4. Conservative operations on the tubes.

Vaginal Drainage—A very few years ago gynecologists were struggling to obtain proper recognition for vaginal drainage. To-day its place in pelvic surgery is well established. Oftentimes its benefits are simply palliative, rendering safe the removal of an infected focus by laparotomy later. At other times it confers permanent symptomatic cure. Kelly (5) in reporting sixty-five cases so treated by him up to 1896 announces thirty-two cures. Its most common use is in draining pelvic abscesses, but oftentimes we find it applicable to other conditions. I have more than once seen a dense cellulitis, in which all the pelvic structures were swollen and edematous, yield promptly and permanently to vaginal incision and drainage. Last year F. L. Adams (6) reported to us four cases of pelvic hematocele, the result of ruptured tubal pregnancy, successfully treated by vaginal incision, irrigation and drainage. Our literature is full of illustrative cases, but it is not within the scope of this paper to more than suggest the applicability of the different procedures under discussion.

Conservative Operations on the Uterus.—This brings us to the subject of myomectomy. Gynecological surgeons seem to be almost a unit in their advocacy of myomectomy as the operation of choice, and with improved technique and greater experience, from year to year, the scope of applicability increases. The contra-indications are:

1. Conglomerate growths whose relationship with the uterus cannot be defined.
2. The presence of pelvic inflammatory disease.
3. A condition of grave anemia in which the sole considerations are to prevent present and future hemorrhage and get the patient off the operating table as soon as possible.
4. Grave organic disease of vital viscera the presence of which is likely to impair constructive metamorphosis.
5. A tumor so large as to make the resultant wound in the uterus difficult of closure, and the involution of the thinned uterine walls problematical; *e. g.,* tumors extending above the umbilicus.
6. Approaching menopause.

T. S. Cullen (7) emphasizes the inadvisability of attempting myomectomy in the presence of inflammatory disease of the adnexa. He says:

> If you have diseased tubes under no circumstances attempt a myomectomy. In one case, I remember to my sorrow, I opened up both tubes. They contained no pus, but there had been an old inflammatory process. I wanted to save the tubes and ovaries and at the same time remove the myoma from the body of the uterus. This patient became septic and although we operated four times in attempting to relieve her, she died at the end of a month. I have made it a definite rule never to do a myomectomy where the tubes are not normal, but given normal tubes and ovaries a myoma may be removed, no matter how large, and even if it involve the uterine cavity to a considerable extent. I have found from the examination of many cases that the uterine mucosa is usually normal, provided we have normal tubes and ovaries.

Guy L. Hunner (8), who is associated with Howard Kelly in his work at Johns Hopkins Hospital, has kindly reported to me two hundred and thirty-seven cases of myomectomy. Of these, one hundred and eighty-four were abdominal, with three deaths, and fifty-three were vaginal, with three deaths. This gives in the abdominal work a mortality of 1.63 per cent, a remarkably low mortality record for any kind of capital work.

Without enlarging on the relative merits and demerits of myomectomy in comparison with hysteromyomectomy or pan-hysteromyomectomy, I think it safe to say that, paying attention to the exceptions above noted, myomectomy has been well established as the only treatment for uterine myomata.

Conservative Operations on the Ovaries.—This embraces the releasing of adhesions, the enucleation of superficial graafian cysts and the resection of the organ for cysts of the corpus luteum, small dermoids, small hematoma, small fibroids, etc. Even fairly large ovarian cystoma will often show at their base healthy ovarian stroma which may be saved with unimpaired functional

utility. The largest cyst which I have personally operated upon with conservation of the ovary was the size of a large orange, but much larger cysts may oftentimes be found that have not caused complete destruction of the ovary. Whenever any healthy ovarian tissue can be found at the base of the cyst it should be saved. The best guide in searching for such tissue is the utero-ovarian ligament.

The general consensus of opinion is in favor of ovarian conservatism under almost all conditions. With two or three exceptions all the replies I received to my letters of inquiry were unanimously in favor of conserving the ovaries, even if only a small piece of ovarian tissue could be saved. There are very few conditions which justify sacrifice of the ovaries unless the menopause is so close at hand as to make conservative effort useless; and even then it is questionable if the woman should be robbed of the benefit of the ovarian secretion on the animal economy, for, that the ovary is a secreting gland, analogous to the thyroid, the products of which have a general anabolic influence, has been pretty well demonstrated, and we have no means of knowing that this secretion ceases with the advent of the climacteric, in fact the bulk of clinical evidence is rather to the contrary. The only conditions which justify ovarian sacrifice are:

1. Large cysts, abscesses, hematoma or fibroid tumors which have entirely destroyed all healthy ovarian stroma.
2. The presence of malignant disease.
3. The presence of tuberculosis.

Even in the presence of limited malignant disease of one ovary, in a young girl, *e. g.*, a superficial papilloma, Kelly (9) thinks the other ovary might be conserved and carefully watched and subsequently removed should it show evidence of disease.

One thing must be kept in mind in this and similar cases where one ovary has been preserved and the other removed, and that is that the ovary left behind will usually take on a physiological hypertrophy to enable it to do double duty, and this must not be misconstrued as evidence that it is becoming diseased. I have more than once had men, whom I have induced to leave the adnexa of one side where disease had made it necessary to remove the adnexa of the other side, come to me a couple of months later and express regret at their conservatism because they have found that the ovary left behind was about twice as large as it had previously been. Time, however, proved this hypertrophy to be the only outcome of the conservative effort.

Conservative Operations on the Tubes.—Here is where the opinions of surgeons differ. Some men who believe in myomectomy and conservatism of the ovaries will not risk conservative work on diseased tubes; other men perform plastic work on the tubes as a routine practice with good results. It is hard to reconcile these divergent opinions. My own experience with conservative work on the tubes, has, so far, been highly satisfactory. There is no doubt that much greater judgment and forethought is required to practice a wise conservatism on the tubes than is necessary in conservative work on the ovaries. This is largely owing to the septic influences that so often surround tubal disease. Disappointing results often follow conservative work on the tubes. We should not, however, be deterred by this fact from practicing tubal conservatism, but we should be warned by the bad results that sometimes occur of the necessity for most careful consideration of the factors that enter into this surgical problem. We would have fewer unfortunate sequelæ if we could foresee the exact conditions of a given case before operating, and could carefully plan our line of action in treating it. Our mental preparation for this work is often deficient, and lack of preconceived plan is often responsible for our errors of judgment. We rely too much on our ability to cope with these conditions in the operating-room, and do not operate on a sufficient number of cases in our study. There, we can operate on all kinds of conceivable cases and plan our methods of procedure with deliberation, and the plans thus made can be brought into instant use when we are confronted with the emergency on the operating table.

The following are the most common conservative operations that have been practiced upon the tubes:

1. The release of adherent tubes.
2. The opening or resection of closed tubes.
3. The emptying, cleansing, and sterilization of inflamed tubes.
4. The amputation of diseased tubes.
5. The excision of a diseased or strictured portion of tube, followed by tubal anastomosis. (Salpingo-salpingostomy.)
6. The drainage of tubal abscesses.
7. The preservation of the tube in extra-uterine pregnacy.
8. The dissection of small cysts or growths from the surface of the tube.

F. B. Carpenter (10), in discussing the subject of tubal conservation, says:

> There is but one point in this whole argument upon which I would lay special stress, viz: don't risk much conservatism on recently infected tubes. It is dangerous business. I have recently seen a fatal termination as the result of an effort to save the occluded tubes by splitting them up, cleaning them out thoroughly and stitching them open. The operation was carefully and well done, the peritoneum well protected and apparently not soiled. The pus developed by the general and fatal peritonitis proved to be a beautiful culture of the gonococcus.

I had a very anxious time with a similar case: Miss F. consulted me for pelvic pain. I discovered that she had just recovered from an acute

attack of pelvic peritonitis. Examination under chloroform disclosed a boggy mass at the fimbriated extremity of each tube. Operation showed double pyosalpinx with enlarged clubbed masses on each tube. The tubes were freed of adhesions and the enlarged part amputated, leaving an inch or more of macroscopically normal tube at the uterine end. Two or three fine catgut sutures united the peritoneal and mucous coats. Three days after the operation acute peritonitis developed, and for two or three days the patient's life was despaired of. The vital functions got so low as to make recovery seem almost impossible. Nothing having been retained by either stomach or rectum for many hours, I decided to nourish the patient by hypodermoclysis, and, to the normal salt solution which was being put under the breast every three hours, I added an ounce of liquid peptonoids. From the time I commenced doing this the patient improved, and was soon out of danger. Whether this improvement would have occurred anyway, or whether the use of this stimulating nourishment whipped up the flagging vitality and turned the tide in the patient's favor, I cannot say. I shall try it again when confronted by a similar emergency.

In contradistinction to these two cases I would like to mention two or three others:

Mrs. W. came to me with a history of a recent attack of peritonitis. Examination revealed a large mass on left side, smaller mass on right. Operation showed double pyosalpinx and a cyst on the left ovary the size of an orange. The healthy ovarian stroma found at the bottom of the cyst was separated from the cyst wall and the ovary stitched up. The diseased portions of both tubes were amputated. Patient made an uninterrupted recovery and has remained in excellent health.

Was called in to see Miss F., who was just recovering from an acute attack of peritonitis. Found a large mass on the left side. Diagnosis, pelvic abscess. Recommended vaginal drainage. After going through vaginal wall I opened into a cyst, went on through cavity of cyst and opened an abscess. Both abscess and cyst were drained, and patient made a good immediate recovery. Three weeks after the operation no trace of any trouble could be felt. A few weeks later, however, pelvic discomfort returned, and a good-sized mass could be felt. Laparotomy was performed. There was a large, fluctuating, conglomerate mass about the size of an orange on the left side. This mass was entirely removed and was found on after-study to consist of a large convoluted tube, underneath which, in the folds of the broad ligament, was an abscess cavity surmounting a cyst of the ovary. The tube and ovary of the other side, being seemingly healthy, I conserved them. Recovery unusually good.

Mrs. S. had had an attack of acute peritonitis some months previous. She was suffering with very severe pelvic pain, intermittent attacks of vertigo, an excruciating constant neuralgia in the right supraorbital region, loss of vision in the right eye and dimness of vision in the left. Examination showed an inflammatory mass on both sides. Laparotomy revealed both tubes to be characteristically enlarged, contorted, and clubbed, and embedded in an immense mass of inflammatory exudate. The existing adhesions were frightful, worse on the right side than on the left. The ovaries were enlarged and cystic. The right tube was completely removed; the outer part of the left tube was amputated, a stump about an inch long being allowed to remain. Both ovaries were resected. Recovery perfect. The remote results of the pelvic inflammation in this case are interesting, the neuralgia and loss of vision being on the side where the densest pelvic adhesions existed. The neuralgia was at once relieved by the operation, and the sight returned gradually to the eye.

From these illustrative cases, and many others that might be mentioned, we may draw a few practical conclusions:

1. We should be very cautions about applying conservatism to cases known to have been recently infected.

2. The advent of an acute attack of localized peritonitis in a patient suffering from chronic infection, in other words, an acute "lighting up" of an old infection, does not contra-indicate conservatism.

3. The presence of acute infection in one tube, which it is deemed advisable to remove, does not call for removal of the other tube also, unless it is similarly diseased.

4. The longer the patient has been infected the more likelihood there is for the pus or inflammatory products in the tube to be sterile, and the more safely may we consider conservatism.

5. Of the two procedures, resection of the tube and amputation of the tube, the latter is the safer procedure, as we do not then leave behind a lot of thickened, inflamed, and more or less infected tissue to menace our results, and that a stump of a tube is capable of carrying an ovum to the uterus has been demonstrated.

6. Just how far we may go, and where we must stop, in our endeavor to save the tubes and perpetuate the procreative function, has not yet been demonstrated.

I had hoped to be able to take up some of the remote results of conservative work, as I have collected some interesting cases of pregnancy following conservative operations on the tubes, but time will not permit. In this regard I cannot refrain from directing your attention to an article on this subject to be found in the *Gynecological Transactions* for 1900, by W. L. Burrage of Boston, and a later article by the same author, to be found in the *New York Medical News* of April 13, 1901.

REFERENCES.

1.—*American Journal of Obstetrics and Diseases of Women and Children*, Vol. XLIV, No. 2, 1901.
2.—*Operative Gynecology*, Vol. II, p. 169.
3.—Private communication.
4.—Private communication.
5.—*Operative Gynecology*, Vol. II, p. 223.
6.—*Transactions of the Medical Society of the State of California*, Vol. XXXI, p. 187.
7.—Private communication.
8.—Private communication.
9.—*Operative Gynecology*, Vol. II, p. 172.
10.—Private communication.

POTT'S DISEASE OF THE SPINE IN CHILDREN: ITS COMPLICATIONS.*

By JAMES H. TEBBETTS, M. D., Hollister.

THE PRINCIPAL and most important complication of Pott's disease is the tuberculous abscess, and will demand all our skill and attention. It is also the most frequent complication that may occur, although we may safely remark that, with thoroughly efficient and early treatment of the original disease, we would surely find fewer abscesses. We may add, however, that it is not an infallible evidence of incomplete or improper treatment, and one cannot always prevent the formation of an abscess. It is in fact quite remarkable that it does not occur more frequently, and produce more serious results.

When this condition occurs, we do not have the true abscess formation, as it contains no pus, primarily, and it is better to describe it under the name of "tuberculous abscess," containing tuberculous fluid, and, in addition, serum leukocytes, casein, and fibrin, more or less cheesy necrotic tissue, with frequently microscopic bone tissue, forming a sediment on standing. This fluid is sterile, unless secondary infection has occurred, when pus is then present, green or yellow, and of uniform consistency.

The abscess may be produced by certain conditions, which cannot always be determined in every case. We notice, first, the lessened power of resistance of the patient to the tuberculous invasion. This may be both general and local. There may be a history of a previous injury received. Pyogenic infection is not required to produce the abscess, and, as above stated, many of them are sterile, or contain tubercle bacilli only. Pressure and irritation are potent factors, both in producing an abscess and increasing its size.

An abscess may escape observation during the patient's lifetime, and then be discovered at the autopsy. They are present in over 25 per cent of all cases of Pott's disease, in about 8 per cent of the cervical cases, 20 per cent of the dorsal, 72 per cent of the lumbar, and at least 50 per cent where the disease is in the lower spine. Here the vertebral bodies are larger, and offer less resistance than do those of the higher spine to the progress of the disease.

The abscess may remain stationary for a considerable time after its discovery, and should there be a rapid and notable increase in its size, we may expect that some outside infection has been received, or that rapid destructive changes are occurring. The position and size of an abscess may produce pain and discomfort, and attract in this way the attention of the patient. Pain and temperature also indicate that the abscess is nearing the surface, and always in the line of least resistance, aided by both gravity and pressure. The course of an abscess below the diaphragm is very interesting. It may enter the sheath of the psoas muscle, appearing externally upon the inner thigh as a psoas abscess. It may enter the sheath of the quadratus lumborum and appear between the twelfth rib and the crest of the ilium as a lumbar abscess. It is called an iliac abscess when it passes downward upon the iliac fascia, sometimes appearing at the outer end of Poupart's ligament. When it passes through the greater sciatic foramen, a gluteal abscess results.

The table of Treves shows the origin, location and point of appearance of these spinal tuberculous abscesses:

Variety.	Course.	Exit.
Cervical	(*a*) Anterior	Into the posterior wall of the pharynx.
	(*b*) Burrow beneath the deep fascia, into the thorax, as a mediastinal abscess	Into the trachea, œsophagus, or through an intercostal space.
	(*c*) Laterally, between longus colli and scaleni muscles	Posteriorally, to the sterno-mastoid.
Dorsal	(*a*) Burrow posteriorly	On the back or side, a short distance from the spine.
	(*b*) Within the psoas sheath	Beneath Poupart's ligament, in Scarpa's triangle.
Lumbar	(*a*) Enter psoas sheath	As psoas abscess.
	(*b*) Burrow between the fasciæ of the quadratus lumborum and abdominal muscles, through the internal oblique	Posteriorly beneath the external oblique, and latissimus dorsi, at the outer border of the erector spinæ muscle.
	(*c*) Gravitate beneath the internal iliac muscles, over the posterior brim of the pelvis, perforating the great sciatic foramen	As a gluteal abscess.
	(*d*) May be directed to the iliac region, along the aorta, and external iliac arteries	As a gluteal abscess.

They may develop unilaterally or bilaterally, may appear in the mouth, thorax, in the posterior mediastinum, or passing downward therefrom, through the aortic opening in the diaphragm, form an iliac abscess. A retropharyngeal abscess may be caused by tuberculous disease in the occipito-axoid region, the fluid passing between the recti

* Read before the Medical Society of the State of California at the annual meeting held in San Francisco, April 14 to 17, 1902.

muscles. It may also dissect a path around the skull, or even enter the foramen magnum.

From the middle cervical region an abscess may dissect a channel between the scaleni and the longus colli, thence between the trapezius and the sterno mastoid, reaching the surface at the anterior border of the latter. In rare instances an abscess has entered the spinal canal, pleural cavity, lungs and intestines. The psoas abscess is undoubtedly of most frequent occurrence, and is seldom seen in children, except in Pott's disease, and is nearly an infallible sign of dorsal or lumbar tuberculous vertebral disease. They may open into the hip joint, giving rise to hip joint disease, or into the inguinal canal, simulating hernia.

Leukocytosis is found in some cases of abscess, although not invariably. Fever is not a constant symptom, but where a patient has had considerable fever it often proves a forerunner of an abscess, which, however, may not reach the surface for several weeks or even months. Hectic fever, together with other septic symptoms, is not usually present unless the abscess cavity has opened and infection occurred, but slight temperature is often observed without such infection.

An abscess in the lung produces less disturbance than one would expect, and the only physical signs found may be those of a chronic or acute localized pneumonia. The abscess may rupture into a bronchus and the fluid be coughed up, followed by more or less collapse, according to the size of the abscess.

A sudden discharge of pus is indicative of the rupture of an abscess into the pharynx, esophagus, intestine, or bladder. It is not unusual for an abscess to become stationary and absorption of its contents to follow.

An abscess is of serious import to the patient by causing delay in our mechanical treatment. Deformity is often increased by the abscess formation, and death may occur from asthenia and secondary surface infection. Spontaneous openings may discharge for years, unless very thoroughly treated, and with good drainage, and even then sinuses, deep and tortuous, may remain unhealed. The rupture of abscess fluid into the peritoneal cavity is usually fatal, and invariably so in case it should, in its course, communicate with a large blood vessel. As soon as recognized, the abscess fluid should be evacuated, followed by the most free and careful drainage, under perfect aseptic surroundings and precautions.

The retropharyngeal abscess may be opened from the mouth, if time is urgent, but it is better surgery to operate by external incision along the posterior border of the sterno-mastoid, in its upper third, dissecting carefully; then open and drain thoroughly, and the opportunity for this free drainage gives this method its advantage.

An abscess of the thorax should be treated by rib resection and drainage. In those of the lower spine, treat by free incision, gently remove all possible of the abscess membrane with a small gauze sponge and pressure, flush well with salt solution and secure free drainage, with counter openings, if required. The patient should live in the open air and sunshine, and receive most careful mechanical treatment, as indicated.

It is possible in some cases to aspirate these abscesses, repeating as often as the cavity refills, and following with a pressure compress. Where the abscess is still uninfected, there is good authority for the treatment by injection of sterilized emulsion of iodoform and glycerin, in 10 to 20 per cent, using ʒjj to ʒiv, once in one to two weeks, either with or without previous evacuation of the contents. The toleration of the patient for iodoform should be watched, and with this in mind, and with aseptic precautions, no harm has resulted. Iodoform has no value where the abscess cavity has become infected, nor does it have much effect upon the general tuberculous process. A favorable result may be expected where the abscess contents are transformed into a viscid fluid, and from one to six injections are usually sufficient to produce this effect in susceptible cases.

While not so frequently occurring as abscess, as a complication in Pott's disease, paralysis is seen in from 5½ to 13.7 per cent of all cases, according to different observers. It is not as serious a complication, however, and, like abscess, may and does occur in some cases where early and approved methods of treatment are employed. The principal cause of paralysis is pressure, from some source, somewhere upon the cord or nerves. There may be swelling, and hypertrophy of the softer tissues within the bony canal, thickening of the dura, and pachymeningitis resulting from extension of the tuberculous process backward through the posterior ligaments, and invasion of the epidural space. There may be pressure from a necrosed fragment, or from a neighboring abscess.

Paralysis develops more often in cases where kyphosis is moderate or slight, and where the disease is located in the upper and middle dorsal region, as here the spinal canal is smaller, and it is more difficult to secure and maintain proper and efficient fixation treatment. It is said that 15 per cent of all these cases may show more or less paralysis symptoms during the progress of cure. An early symptom of paralysis is an attack of herpes zoster along the course of the nerve first sustaining pressure. Paralysis has been observed before the deformity was apparent,

but it usually develops from six months to one and a half years after the tuberculous process has begun.

The shambling gait and manner in which the patient will drag his leg, will usually first attract attention, and there will also be noticed undue muscular fatigue and weariness on slight exertion, and there soon appears the inability to stand erect. The exaggerated reflexes are shown upon examination of patella and ankle, and still later on, muscular rigidity develops. Motor paralysis precedes the sensory, and sensation may remain after loss of motion, as the anterolateral columns receive the most pressure, but if the case continues to progress unfavorably, there will be more or less sensory paralysis.

It is very necessary to distinguish true paralysis from cases that may simulate this condition, in those patients who are simply bedridden, but are not paralyzed, and whose reflexes are normal. They may be asthenic, or have contraction of the psoas muscle and may be discouraged and believe that they cannot walk. Both legs of a patient may become equally affected at the same time, or one may precede, and the same may be noticed in convalescence.

In the early stage, where weakness is about the only symptom, spastic rigidity of the limbs may be produced by moving them, or by stimulating the reflexes. Sensation, in the mild cases, although not entirely lost, is nevertheless impaired, and so, also, is control of the bladder, while that of the sphincter ani is but slightly affected. Pain is rare in paralysis, and, if present, is but the usual characteristic pain of the disease. The extent of the paralysis naturally depends greatly upon the location of the cord pressure.

In convalescence the first favorable indication is lessening of the rigidity, with slight return of motion to the toes and feet, with more or less rapid improvement thereafter. The exaggerated reflexes may persist for quite a long period after recovery, and many patients show them who were not paralyzed.

Prognosis is, on the whole, fairly good in these cases of paralysis, and recovery may safely be anticipated in 70 per cent, and may occur early if proper treatment has been instituted. It is usually complete without subsequent traces. The prognosis depends greatly, of course, upon the extent and amount of cord pressure, as shown by the degree of paralysis, and recovery will be slower and more doubtful in those cases where the sphincters are much involved, but may eventually occur even in the worst and apparently most hopeless cases.

There may be a recurrence of the symptoms after an apparent recovery, and this has been reported from one to seven times. These relapses may be possible where treatment has been either neglected altogether, or immobilization of the spine has been too brief.

The treatment of paralysis is mechanical, and thoroughly efficient treatment of the disease in general fixation of the spine as perfectly as possible. This needs particular emphasis, as there is sometimes an effort made to have the physician relax the immobilization treatment at this very time when greatest care and vigilance are imperatively indicated. During convalescence, massage and manipulation of the limbs should be faithfully employed, but these methods are contra-indicated in the early period, being then liable to overstimulate the nerve centers.

Iodid of potassium may be administered in small doses, gradually increasing to a considerable dosage, then slowly decreasing to the original amount. The operation of laminectomy is not now recommended except in rare and selected cases, and is seldom indicated.

THE TREATMENT OF SCLEROSIS OF THE MIDDLE EAR.*

By M. W. FREDRICK, M. D., San Francisco.

BY SCLEROSIS of the middle ear I mean that condition in which the mucous membrane lining the cavity has become highly atrophic, the ossicles rigid, and the bone-conduction, in many cases, somewhat lowered from disuse. I think it worth while to define the term, as many writers use it rather loosely, including those conditions which are really the initiatory stages of sclerosis, such as hypertrophic otitis media chronica.

The many methods proposed for treating sclerosis of the middle ear, most of which were brought out with a great flourish of trumpets, only to sink into oblivion soon after, prove that we are yet a great way from having found a really good method of relieving this most distressing condition. The great activity in this direction, however, promises that before long we may arrive at some method which will be of permanent value.

Not so many years ago the sufferers with sclerosis were refused all treatment by honest aurists, and were advised to resign themselves to their condition. To-day, however, those in whom the bone-conduction is still good can have the satisfaction of trying some of the methods which have proven themselves efficacious in similar cases. Where the bone, or tissue-perception, is

* Read before the Medical Society of the State of California at the annual meeting held in San Francisco, April 14 to 17, 1902.

greatly diminished it would be useless to try anything until we have found a remedy for atrophy of the special nerves, which, in the light of our present anatomical and pathological knowledge, seems highly improbable.

The best remedy for sclerosis lies, of course, in the prophylaxis. Educating people, especially parents, to attend to nasal and pharyngeal catarrhs, nasal obstruction, adenoid growths of the pharyngeal vault, the complete cure of acute cases of otitis media, would avert the majority of cases of sclerosis. Unfortunately the underrating of the importance of the conditions just mentioned, together with the painlessness and the insidious progress of sclerosis, keeps most patients in ignorance of the gravity of his malady until it begins to seriously interfere with his relations with the world, or the tinnitus becomes so annoying that it can not further be ignored. Then the aurist is asked to cure a condition which has existed for many years, when the deviation from the normal is so great that a return to anything like normal conditions seems entirely out of the question. It is now a question of relief only, and in that direction a great deal of work has been done in the last decade by conscientious workers.

One very promising means of prophylaxis of recent mention is the method of electrolytic dilation of strictures of the Eustachian tube, about which Duell, Newman, Harris, Kenefick and others have written a good deal of late. The method has been tried by several men in this city who report results quite as satisfactory as those of the authors mentioned. The short time that the method has been in use prevents one from expressing an opinion as to its permanent value. What value the method can have in old cases of sclerosis, with wide, dry Eustachian tubes, is beyond my comprehension; nor can I, *a priori,* understand how a severe case of tinnitus can be relieved by several applications of the electric bougie in the cases of sclerosis already referred to.

The simple Politzeration has already become obsolete, as has also the injection of fluids and oils through the Eustachian catheter. I have personally experimented with a large number of fluids and oils without deriving the slightest benefit from them. In England the injection of warm solutions of potassium iodid was long in vogue, and in this country other preparations of iodid have been extensively used. I tried for a considerable period of time sozoiodolic acid, which was largely advertised in the German journals as an absorbent of connective tissue. I used it both by instillation into the external meatus and by forcing it through the Eustachian catheter. The most I ever got from it was severe irritations of the middle and outer ear. What seemed of most good in my hands was a solution of camphor and menthol in albolene, but even that did not seem to me of high value.

As to internal medication for sclerosis the drugs vaunted by their proponents have generally proved worthless in the hands of others. Thyreoid extract was recommended, especially in young people, but has shown itself worthless except in the case of subjects of myxedema. Wilde and Gruber spoke very highly of tinture of arnica in 15-drop doses, and of muriate of ammonia. In cases with a neurotic basis, the hydrobromic acid is useful in diminishing tinnitus.

The treatment with pilocarpin injected hypodermatically I consider a waste of time and energy in these cases, as the improvement, just as in the case of optic atrophy treated with strychnin injections, is merely temporary, and only adds to the discomfort of the patient. The injection of pepsin from the stomach of a dog into the middle ear, like many other measures proposed for the relief of this condition, is so fanciful as to seem like the outcome of despair.

Of course the general condition will need attending to in many cases, and there we shall have good use for drugs and other measures to remedy the anemia, syphilis, gout, rheumatism, etc., which are often cauative factors of sclerosis. I want to say that I think aurists are often remiss in seeking the origin of the trouble. To them the local symptoms were all-sufficient, and their horizon seems bounded by the aural symptoms. The hygiene of the patient will need looking after, and often a change of employment will be advisable. The latter is often a hard thing for the patient, but in the case of young people it should be insisted on, when the occupation is in a noisy factory, or in a trade which calls for frequent wetting of hands and feet, and exposure to draughts. One thing which our San Francisco patients need to be cautioned against is the habit of riding on dummies of the street cars. Of course, excesses in tobacco and alcohol are strictly to be forbidden, and they should be warned when swimming to pack their ears with lambswool or some similar non-absorbent material.

For the relief of sclerosis vibratory massage has, in my hands, proved of the greatest value. I can look back upon about 100 cases of advanced sclerosis treated by that method, over half of which have been benefited. By benefited I mean that, first of all the disease has been arrested; secondly, that the hearing distance has increased; thirdly, that the tinnitus has decreased, and also that the range of tone perception, especially downwards, has been augmented.

I use an electric motor for performing the massage, both because I think it better for the patient, and as a matter of convenience to myself. The motor is about 1-10 horse-power, and operates a dental pump. In the head of this pump

is a valve, which, when open, produces a forward stroke only of the air, and when closed produces a to-and-fro movement of the air.

I introduce a catheter of the largest possible caliber into the Eustachian tube, and, with the valve open, allow the pump to act two or three minutes on each ear. Then I close the valve and apply the to-and-fro motion of the air to the drums through the external meatus by means of suitable earpieces, for about five minutes. I claim that the application of air-massage to the Eustachian tubes, especially in the case of wide, dry tubes, increases the circulation and restores their function in part, just as vibratory massage does in atrophic rhinitis. The value of massage applied to the stiffened drum and the rigid ossicles is as apparent as the massage of any stiff rigid joint would be.

The pump I use has a piston stroke of 15 millimeters, but, as the air passes through a long tube before reaching the ear, the effect is considerably diminished.

In the cases of people who live in the country, I had devised a method of self-treatment which I thought my own until I read of it in an Eastern journal. It consists simply in providing a set of auscultation tubes with a mouthpiece, which the patient by rythmic suction causes to produce somewhat the same effect as the machine used in the office.

CORRESPONDENCE.

MANIFESTO ON USE OF ALCOHOL.

Editor California State Journal of Medicine—Dear Sir: Three times during the last half century medical manifestos have been issued giving the opinion of physicians on alcohol. The first was issued in 1839, and was signed by 86 persons. The second in 1847, and was signed by 2000 physicians, and the third appeared in 1871, with the signatures of over 4000 physicians, including the names of many leading physicians in all parts of the world. A fourth declaration of opinions is now being circulated for signatures, and reads as follows:

"The following statement has been agreed upon by the Council of the British Medical Temperance Association, the American Medical Temperance Association, the Society of Medical Abstainers in Germany, and leading physicians in England and on the continent. The purpose of this is to have a general agreement of opinions of all prominent physicians in civilized countries concerning the dangers from alcohol, and in this way give support to the efforts made to check and prevent the evils from this source.

"In view of the terrible evils which have resulted from the consumption of alcohol, evils which in many parts of the world are rapidly increasing, we, members of the medical profession, feel it to be our duty, as being in some sense the guardians of the public health, to speak plainly of the nature of alcohol, and of the injury to the individual and the danger to the community which arise from the prevalent use of intoxicating liquors as beverages.

"We think it ought to be known by all that:

"(1.) Experiments have demonstrated that even a small quantity of alcoholic liquor, either immediately or after a short time, prevents perfect mental action, and interferes with the function of the cells and tissues of the body, impairing self-control by producing progressive paralysis of the judgment and of the will, and having other markedly injurious effects. Hence alcohol must be regarded as a poison, and ought not to be classed among foods.

"(2.) Observation established the fact that a moderate use of alcoholic liquors, continued over a number of years, produces a gradual deterioration of the tissues of the body, and hastens the changes which old age brings, thus increasing the average liability to disease (especially to infectious disease), and shortening the duration of life.

"(3.) Total abstainers, other conditions being similar, can perform more work, possess greater powers of endurance, have on the average less sickness, and recover more quickly than non-abstainers, especially from infectious diseases, while they altogether escape diseases specially caused by alcohol.

"(4.) All the bodily functions of a man, as of every other animal, are best performed in the absence of alcohol, and any supposed experience to the contrary is founded on delusion, a result of the action of alcohol on the nerve centers.

"(5.) Further, alcohol tends to produce in the offspring of drinkers an unstable nervous system, lowering them mentally, morally and physically. Thus deterioration of the race threatens us, and this is likely to be greatly accelerated by the alarming increase of drinking among women, who have hitherto been little addicted to this vice. Since the mothers of the coming generation are thus involved, the importance and danger of this increase cannot be exaggerated.

"Seeing, then, that the common use of alcoholic beverages is always and everywhere followed, sooner or later, by moral, physical and social results of a most serious and threatening character, and that it is the cause, direct or indirect, of a very large proportion of the poverty, suffering, vice, crime, lunacy, disease and death, not only in the case of those who take such beverages, but in the case of others who are unavoidedly associated with them, we feel warranted, nay, compelled to urge the general adoption of total abstinence from all intoxicating liquors as beverages as the surest, simplest and quickest method of removing the evils which necessarily result from their use. Such a course is not only universally safe, but is also natural.

"We believe that such an era of health, happiness and prosperity would be inaugurated thereby that many of the social problems of the present age would be solved."

This declaration has already received the signatures of over 1000 physicians in all parts of the country. I have been appointed chairman to present this manifesto to American physicians for their endorsement. I should be very glad to receive the name, title and address of any physician who is willing to aid by his signaturs to correct public sentiment and assist in the prevention of one of the great evils of the age. This is purely a scientific effort for the purpose of having a general consensus of opinion of the leading physicians of the world, and it is assumed that American physicians are equally enthusiastic and prompt to lend their signatures to this statement as in the wine-drinking countries of Europe. A postal card with address and title is earnestly solicited from every medical man who would like to be represented in this great movement for a clearer comprehension of the subject. Address

T. D. CROTHERS, M. D.,

Hartford, Conn.

California State Journal of Medicine.

Published Monthly by the
Medical Society of the State of California

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

APRIL-MAY, 1903.

EDITORIAL NOTES.

NOTICE TO ADVERTISERS.

All manufacturers or dealers whose goods are used by physicians, and whose products are such as could be accepted for advertising in the JOURNAL, are requested to consider the following resolution which was passed at the recently closed meeting of the State Society:

"*Whereas*, the Medical Society of the State of California has decided to publish a register or directory of physicians, and has established the *California State Journal of Medicine* as the official organ of the Medical Society of the State of California; and,

"*Whereas*, the expenses of the year will necessarily be large,

"*Be it resolved*, That this Society call the attention of its members to the financial aid they can render the Society and themselves by patronizing such firms as make use of the advertising pages of the Society's publications, wherever such preference can be shown without disadvantage."

VOLUME ENDS WITH THE YEAR.

The JOURNAL commenced with November, 1902. If each volume, of twelve numbers, commenced with November of each year, the contents would embrace parts of two years. For many obvious reasons it is desired to avoid this, and to have each volume of the JOURNAL represent the work of one year, from January to December. For that reason it has been decided to combine April and May issues, and probably two subsequent months, so that Volume I will end with December, 1903. A word of explanation is necessary for the benefit of our advertisers. All one year contracts will be carried out by the insertion of the advertisement in twelve issues, and the adjustment of the two excess numbers of Volume I will be made gradual, so as to interfere with regularity of publication as little as possible. This course will doubtless meet with the hearty approval of the JOURNAL readers and patrons, as it will greatly facilitate the use of back volumes for reference.

TO REPRESENT ENTIRE STATE.

The Publication Committee and the editor are very desirous of having as full reports as possible of the meetings and proceedings of the various County Societies throughout the State, for publication in the JOURNAL. The office of the JOURNAL being in San Francisco, it is easy to personally report the meetings of the medical societies of that city, but it is the strong desire of the committee to make as full reports of the meetings in other counties, and by no means to confine the publication of society meetings to any one place or county. This cannot be done by the Publication Committee or by the editor; the members must come to their assistance and send to the JOURNAL the necessary information. If the President and Secretary of each County Society will make an effort to see that some one person in that society—the Secretary, if he will do so—sends in reports of the meetings, and to see that the work is attended to, the JOURNAL will be very materially helped thereby. The JOURNAL should be truly representative of the whole State, but this it can only be with the help and assistance of every one of the State Society's members. The Secretaries of County Societies are urged to write to the JOURNAL at least once a month, giving the local medical news of the county and County Society. It is desired to publish this information, but it can only be done through the coöperation of the officers of the County Societies.

HOW TO AVOID IRREGULARITY.

Every member of the State Society—and every member of a County Society—is requested to advise the JOURNAL at once if there is any irregularity in the receipt of the JOURNAL by himself or any other member whom he knows. Mistakes in addresses or in County Society rolls are bound to occur from time to time, and these can only be corrected when they are called to the attention of the publication office. There is no objection, in the slightest, to "kicks"; they are welcome, for only through them can errors or omissions be corrected, and the wishes of the members be known. Every member should feel that the JOURNAL is his own and that he may freely criticize it, or make his ideas in regard to it known. Only when this feeling becomes strong can the JOURNAL hope to be what it should be—truly and actually representative, not of San Francisco or the

Bay Counties nor the Northern California section, but of the whole State and of every physician in the State. If each individual member will do his best, this can easily be done; but if he keeps his ideas and his "kicks" to himself, or confides them only to his own circle of friends, the JOURNAL cannot know of, or profit by them. The editor's position is by no means an easy one, and he needs all the help that can be given him. If the County Societies will not see to it that reports of their meetings are sent in, then they should not blame the JOURNAL nor the editor for failing to publish such reports. Each member must take to himself some of the responsibility, and some of the credit or blame.

SHOULD JOIN COUNTY BODY.

A year's work under its new Constitution and By-laws has shown where certain changes are imperatively necessary to the proper and successful carrying out of the Society's work in harmony with the American Medical Association. The existence of "members at large" is in conflict with the spirit, if not, indeed, with the law of the A. M. A., and all such "members at large" should be obliged to join their County Societies. It is the County Society that is the fundamental unit of organization—properly so—and all licensed and reputable physicians should belong to this fundamental organization. Anything other than this would be as inconsistent as permitting a man becoming a member of the Knights Templars without being a member of a "blue lodge." The illustration cited is further apropos, for the whole plan of reorganization of the A. M. A. is merely an adoption of the general fraternal society plan. Therefore, we would say to all members at large, "Join your County Society, or the County Society nearest to your home, if there is none in your own county."

IGNORANCE AND PROGRESS.

There is, or was a short time ago, at least one man in the world who believed, and strenuously maintained in argument, that the world is flat and not round. He was really not so great an ignoramus as one would at first think, for he simply was an extreme type of a large class which it is difficult to educate. It would seem, that, no matter what strides preventive medicine may make, and no matter what discoveries are made in the line of disease origin and transmission, there are always enough people who think the world is flat, to upset the work of scientific progress in sanitation and life conservation. A terrible illustration has recently been furnished by Ithaca, New York, an illustration in which each sentence was punctuated with a death. At Ithaca, and almost always, in fact, where such tragedies occur, we find ignorance and criminal carelessness going hand in hand in the seductive pursuit of money. Unfortunately, it is seldom or never either the ignorant or the criminals who suffer; the innocent pay the price of death invariably exacted.

SANTA BARBARA ADDRESSES.

A notable departure from the classical type of annual addresses occurred at the 1903 meeting of the State Society at Santa Barbara. The President's address deals largely with medical legislation and its various bearings, and is not a long statement of historical episodes. The Address on Medicine deals with a single class of diseases or infections, and covers the ground very fully and rationally. The Address on Surgery, like the other, is also confined to a single subject, which is fully treated. The tendency to treat of a single subject or class, in annual addresses, is certainly a welcome innovation; but the personal opinion or attitude of the individual writer of the address should be as little in evidence as possible. Such addresses are in the nature of editorial utterances and should not be confined to the opinions of a single individual. This is not a criticism of this year's addresses, but simply calls attention to a possible danger.

NEW CLINICAL COAST MATERIAL.

The fact to which attention is called in the Address on Medicine, read at the Santa Barbara meeting of the Society, and printed elsewhere in the JOURNAL, that the variety of the clinical material of the Pacific Coast has increased, and probably will increase, is decidedly more important than many will, at first glance, believe. Numerous oriental diseases have already appeared, and one or two have attracted considerable attention. Most of these oriental diseases have received comparatively little study or attention at the hands of American physicians, and consequently many such cases are not recognized when they first appear in our country. It certainly is exceedingly important that the physicians of the Pacific Coast should devote some time and study to the diseases of the Orient that are liable to be introduced through our developing trade with the Far East.

RESTRICTIVE LEGISLATION.

The absurdity of the situation that would result from an attempt to provide absolutely exclusive legislation against tuberculotics entering the State is well and clearly illustrated in a paper by Dr. Bridge, read at the State Society's recent session. It is not by restrictive and sumptuary legislation that this and numerous other urgent questions may

be settled. Education, practical to the extreme, and if necessary compulsive, through State or city boards of health, can alone serve to remedy those evils which are confronting the medical profession of the country.

COMMUNICATION.

(The following letter, relative to the publication of a monthly journal, will, we believe, interest our readers in that it presents the views of one who, from his former position as editor of a State journal, and who has been active in Association work for some time, is fully competent to speak from experience.—Ed.)

A MONTHLY JOURNAL VERSUS A YEARLY VOLUME OF TRANSACTIONS.

To the Editor of the Journal:—From time to time the question as to the real value of a monthly journal, owned by a State Society, is seriously considered, and varied objections are made toward its continuance. The objections are as follows:

First, the expense; second, its naturally limited field of publication; third, competing with established journals, and fourth, its doubtful utility as a means of inter-communication between members.

Expense.—A yearly bound volume of the transactions is almost as expensive as twelve numbers sent monthly. The bound volume is all solid matter, and there is no income. The monthly journals contain ethical advertisements which materially reduce the cost of publication, and will ultimately prove a source of revenue.

Limited Field of Publication.—Writers of repute are naturally averse to having their work "buried" in a journal of limited circulation, and many journals are desirous of publishing their articles. In such cases I arranged, during my editorship of the *New York State Journal of Medicine*, to have important articles published in the journal selected by the authors, and in the *State Journal*, simultaneously.

Properly conducted State journals do not compete with other journals, in that the former are reserved solely for such papers as are read in State and county associations.

As a means of intercommunication between members, conveying records of official action, suggestions as to new work, and constantly keeping the advantage of membership before the profession, a monthly journal is of incalculable value. This we have demonstrated over and over again. For instance, in former years, through the liberality of committees on publication, many more volumes of the yearly transactions were ordered than were necessary, and there were on hand recently over 2,000 such books, on which the storage expense was quite large. At the request of the treasurer, I inserted a notice that full sets of eighteen volumes each would be given to members who would pay freight charges. The responses were prompt and gratifying, and a large number of these volumes were placed where they would be appreciated, and our end attained. News items from time to time, relative to fellow members, are eagerly read. Association news is always interesting, and editorials on the art as well as the science of medicine, find sympathetic readers. Altogether, then, the value of a monthly journal is incontestible, and those who have given this manner of presenting official news of the State organization a fair trial would never go back to old methods.

EMIL MAYER.

New York, March 11, 1903.

VETO MESSAGE OF OSTEOPATH BILL BY GOVERNOR HEBER M. WELLS, OF UTAH, MARCH 16, 1903.

To the Senate:

I herewith return, without my approval, Senate Bill No. 131, entitled, "An act declaring the practice of osteopathy not to be the practice of medicine and surgery, within the meaning of Title 52, Revised Statutes of Utah, 1898, and regulating the practice of osteopathy in the State of Utah."

The saving of human life, whether by means of looking to the prevention of disease, or by means calculated to cure disease already established, will be admitted without question to be the proper climax of professional ambition, as well as the highest humanitarian desire of legislative enactment. In both these directions, the State of Utah, by vigorous sanitary laws, and by strict requirements as to the quality of medical practitioners, stands well in the forefront of enlightened and progressive commonwealths.

Only through conviction should we venture to weaken in any degree these safeguards, which experience and observation have proven to be beneficent and satisfactory.

PRACTICE IN MEDICINE.

Whatever the term or nature of the tenets of the particular school which this bill aims to recognize, its practice must, it seems to me, be considered a branch of the science of medicine. After all, the physician, of whatever school or designation, has to deal with the same physiology, the same conditions, the same laws of cause and effect, in health and disease. All practitioners may not have the same knowledge and the same skill, yet our statutes have wisely provided, as a matter of public policy and protection, that a certain amount of skilled knowledge all of them must have.

It requires considerable honesty in any practitioner to admit that a case in hand is beyond his powers. His training may be limited, his pretensions modest; but the consequence of his weakness in refusing to concede it are equally dangerous. The natural treatment of any physical disorder is necessarily determined by a diagnosis of a case—a preliminary of first and absolute importance. To do the wrong thing by performing dangerous manipulations, or to do nothing at all—either of which courses is easily open to the unskilled—may be equally fatal. The peril is not lessened if the physician, perhaps by happy accident or coincidence, has discovered the true condition.

HUMAN LIFE PRECIOUS.

The foregoing suggests that the treatment of disease should not be permitted to be a matter of mere experiment; and, inasmuch as the authority to practice presupposed an acquaintance with the science, as recognized by all the regular

schools, any knowledge short of that should be deemed insufficient. I consider it unfair and dangerous, therefore, to allow the adherents of osteopathy, or of any other school, to practice without undergoing the ordinary tests to which other practitioners have to submit. The specialist may go so far as his talents and inclination may carry him, and the public be benefited by his advancement, but the fundamental and essential knowledge which every physician ought to have, cannot safely be waived or ignored.

SAFEGUARDS SWEPT AWAY.

Science is progressive; advancement cannot be stayed, in the art of healing, least of all; and the dogmatism of disputants, whether in medicine or anything else, must soon yield to the light of truth and reason. Whatever merit osteopathy may have, will assuredly find recognition. The present contention is, that in the bill before me, the necessary requirements and safeguards with which the law surrounds the physically afflicted, are thrown down and swept away. To this I am unwilling to consent. No practitioner of this school, who possesses the qualifications required of the practitioners of other schools, needs such a law. I deem it unwise to enact it for the benefit of those who have not those qualifications. Whenever all who seek to engage in the healing art shall be equally recognized as competent, under the regulations now generally established, one medical law will be sufficient. This condition complied with, it would give me sincere pleasure to name as a member of our State Board of Medical Examiners an adherent of the very school in whose behalf this piece of legislation is proposed.

(Signed) HEBER M. WELLS, Governor.

IODID OF POTASH ERUPTIONS.

Case demonstrated by Dr. Douglas W. Montgomery (through the courtesy of Dr. L. W. Allen) of a tuberous iodid of potash eruption, presented before the Academy of Medicine, February 24, 1903:

"The eruption is not very well marked now. It has subsided a great deal, as the patient has not taken any iodid of potash for the past three weeks.

"The man gives a history of having had a sore on the penis fifteen years ago, followed by a universal scaly rash. He was then treated for a short time. Some time afterward an ulcer developed on the outer side of the right upper arm, which improved under a so-called blood medicine (patent). Sores continued to break out down the arm, and recently one of them developed on the back of the right hand. It was while this sore was present that he developed an infected wound on the back of the left hand. He flew to his favorite patent medicine, and sores then broke out on the forehead and scalp. From January 3 to January 20 he took iodid of potash under its proper name, in doses running from ten drops of a saturated solution, three times a day, up to fifty-five drops.

"The lesions were mostly of the tuberous and papillary variety. Some of the lesions strikingly resemble syphilides, and that on the back of the right hand may be luetic. As far as the tubers were concerned, the diagnosis had to be made between an iodid eruption, mycosis fungoides, and dermatitis coccidioides. Dermatitis coccidioides is a disease peculiar to California, and was first described by Dr. Emmet Rixford and Dr. Gilchrist. Its salient characteristic is the presence in the lesions of capsulated organisms resembling coccidia. No capsulated organisms were found. As for mycosis fungoides, it could be excluded clinically, because of the absence of the itchy eczematous lesions characteristic of that disease. It was therefore concluded that the trouble was the result of taking iodid of potash, and the drug was stopped, whereupon the lesions began steadily to subside. An interesting feature of the case is the close resemblance the microscopic sections of the tuber examined bear to epithelioma. Cases have been known where there was only one such growth as a consequence of taking iodid of potash. In such an event, the solidity of the tumor, its rounded edges, the ulceration and papillary growth on its top, and finally, the appearance of microscopic sections made from it might easily lead one to a diagnosis of epithelioma."

In reply to a question as to external treatment, Dr. Montgomery said:

"There is no treatment but the withdrawal of the drug. In about five weeks the iodid rash will subside, leaving nothing, but in some cases, scars, which may be cribriform. I have one man whom I saw about ten years ago, who had cribriform scars over the nose. It is an oval scar, showing in its floor a lot of indentations representing the follicles of the skin. Some men have advised cutting off the warts and scraping the ulcers out. There is no necessity for doing that as far as I have ever seen. One does not see many of these cases, but I have seen a few, and I have never had occasion to use any active measures. I did give this man acetate of potash. I do not know that the acetate of potash did any good, but you have to give something, and acetate of potash is a diuretic, and may hasten the elimination of the iodid. Ordinary measures for cleanliness are in order. Further than that there is nothing to do. Of course, if the eruption is not recognized, it may lead to serious complications. Although we cut a large piece out of the tuber over the eye, there will be no, or very little scar resulting. The reason for that is that you cut out simply the pathological tissue. Very little, if any, of the real tissue of the neighbor-

hood is removed. It is something like the small scar you get from a primary sore of syphilis, for instance. You may get a great big ulceration, and very little scar, because the ulceration has gone on at the expense of the pathological tissue."

CORRECTION OF AN IMPERFECT OPERATION.*

By GEORGE B. SOMERS, M. D.
Professor of Gynecology, Cooper Medical College.

THE case that I wish to present is interesting for several reasons. In the first place the symptoms were misleading, inasmuch as the clinical evidence pointed strongly toward a malignant growth, while subsequent operation proved that the condition was due to a previous imperfect operation. My attention was first called to the case by a district nurse, who had the case in charge under the auspices of the Associated Charities. The patient had been in a local hospital for several months, but was told that her case was inoperable. All that was expected by the patient was something to relieve her of excruciating and, more or less, constant pain. A hasty examination brought out the following points: She was apparently cachectic. The pelvic cavity was filled with an irregular mass. She gave a history of a previous hysterectomy, saying that the uterus had been removed for cancer. In spite of this history it was considered that there was a reasonable doubt as to the existence of cancer and the case was investigated more carefully. The following is the history:

Mrs. J., housewife, age 44, has had six children and two miscarriages. Menstruation began at fourteen, has always been regular and usually lasted four or five days, without pain. Has had malaria, pneumonia, scarlet fever, measles, whooping cough. Had a light attack of inflammation of the bowels fifteen years ago.

Present Illness—Two years ago, while living in Omaha, she had pneumonia. During convalescence several hemorrhages from the uterus occurred, lasting four or five days. She was examined by her attending physician, who told her that she had cancer of the uterus. She was operated on, and, according to her account, the uterus was removed, but the ovaries left. Five weeks following the operation, the patient had a severe attack of pain. This passed away in a few days, but recurred frequently at intervals of about a month. These pains increased in severity until they became unbearable. The pain was located on both sides of the lower abdomen and extended back to the rectum. For the past seven months the pain has lasted six hours every day, for three weeks at a time. She would then have about a week of comparative comfort. During these months she has been practically bed-ridden, spending about two months in a local hospital under the observation of its staff. Was told that the condition was of such a nature that nothing could be done for her.

Examination—Her physical condition was extremely poor. She was thin, weak and anemic, with a sallowness that resembled a cachexia. The heart, lungs and kidneys presented nothing abnormal. A pelvic examination showed the vagina perfectly smooth, without evidence of inflammation, ulceration, or discharge. On close questioning, she said that she had never had any foul-smelling or grumous discharge. Bimanual examination showed the pelvic cavity filled with irregular masses, which were rather boggy than fluctuating. In the median line, corresponding to the situation of the uterus, a globular, freely movable mass could be felt, but it was supposed to be pathological, because of the history of the removal of the uterus.

Diagnosis—The results of the examination were strongly against the presence of a cancer, because, if the original trouble had been malignant, if of two years' standing, and if now large enough to fill the pelvic cavity, it would certainly, by this time, show some signs of breaking down. The patient was informed that there was considerable doubt as to the malignancy of the trouble, and was advised to submit to an exploratory incision.

Operation—As soon as the abdomen was opened, the enlarged uterus presented itself, with tubes and round ligaments uninjured. The original operation then, had not been a hysterectomy. The spaces on either side of the uterus were now found to be filled with cystic masses.

On attempting to remove the mass on the left side, the cyst was ruptured, giving vent to a large amount of brown, syrupy fluid. The right side presented a similar condition. The fluid was undoubtedly menstrual. Altogether about a quart was removed. The uterus appendages and remains of the cyst walls were completely removed. The cause of the condition was clearly a previous amputation of the cervix, which had been followed by a stenosis of the uterine canal. There was absolutely no evidence of cancer present. The patient recovered well, and is now in comparative good health.

*Read before the California Academy of Medicine, March, 1903.

Proprietary Remedies.—Under the head of proprietary specialties must be included the artificial foods. The advertisements and directions state that these contain the nutritive forces in the proper proportion for assimilation in every condition of life. The fat, proteid, carbohydrate, sugar and salt are in mathematically correct percentages, ready for absorption; the chemistry of assimilation, hemogenesis and metabolism have been fully worked out! That some of these foods are honestly prepared and represented is not doubted. Infant and invalid dietetics has been a large field for the exploitation of foods of which the practitioner has often but little knowledge.—*Dr. Bayley in New York State Journal of Medicine.*

REPORT OF THE PROCEEDINGS

OF THE

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

AT ITS THIRTY-THIRD ANNUAL SESSION

HELD AT

POTTER HOTEL, SANTA BARBARA, APRIL 21-23, 1903.

(The outline report here published is more extensive in some portions than in others, owing to the fact that considerable committee work, requiring the presence of the Editor, prevented his reporting in full some parts of the program.—Ed.)

FIRST DAY, APRIL 21.

The thirty-third annual meeting of the Medical Society of the State of California, met on Tuesday, April 21, 1903, at Potter Hotel, Santa Barbara, the president, Dr. F. B. Carpenter, in the chair.

Dr. Philip King Brown, chairman of the committee of Arrangements, introduced Dr. Wm. H. Flint, who welcomed the Society at its first meeting in Santa Barbara.

Judge Aiken, at the request of the Mayor and Chamber of Commerce, delivered an address of welcome in the name of the citizens, and called attention to the desirability of meeting occasionally in Santa Barbara.

Dr. F. B. Carpenter then read the annual address of the president, which was as follows:

PRESIDENT'S ADDRESS.

To the Members of the Medical Society of the State of California: Our presence at this meeting here "by the sun-down sea," is in itself an earnest of our devotion to the cause, and of our sanction of the great and widespread reform now pervading the body medical of these United States.

For the past fifteen years efforts have been made to reorganize the A. M. A. on lines satisfactory to the profession of the country, but, owing to the unwieldiness of a body so large, little actual progress had been made until three years ago, at Atlantic City, when the matter of formulating the manner of doing it was entrusted to a carefully selected committee of three. As the result of their labors there was given to the Association a Constitution and By-laws which completely remodeled its construction, reorganizing on the plan which makes the State Society of each State an integral part of the parent organization.

This reorganization was formally effected two years ago at the St. Paul meeting, and stands today as the foundation upon which is being reared the most colossal organization of medical men which this country has ever known.

In California, this Society is the integral part of that great fabric, and acting upon the suggestion from the central body, this Society ordered the appointment of a large and representative committee, whose duty it should be to present to this Society a new Constitution and By-laws, modeled upon the skeleton outlined by the A. M. A.

So well did this committee do its work that its report last year to this Society was adopted, as presented, without dissent, or without amendment. The adoption of the Constitution and By-laws drafted by the special committee on reorganization has put us in direct affiliation with the A. M. A.

This simply means that continuous membership and good standing in this Society is not only essential, but is absolutely the only means of attaining membership in the A. M. A., as that Association will positively not retain on its rolls names of members who are not members in good standing of their State societies, and it recognizes but a single society in each State as its affiliated subordinate.

To be in good standing in this State Society means further, that you must be in good standing in your county society, and this Society in turn recognizes but one society in each county as its subordinate in affiliation. The whole structure, then, is seen to rest upon a satisfactory membership in the county society of the county in which you live. There you pay your dues, and from the treasury of the county society is paid your dues into the State Society, and while at present you pay your dues independently and individually in the A. M. A., the time, I think, is not far distant when the one payment which you make in your county society will cover your membership in your State Society, in the A. M. A., and also furnish you with the Journal of the State Society, and that of the A. M. A.

It is thus seen that only the member of a State Society may become a member of the A. M. A., and only a member of a county society may become a member of a State Society. In our own State, at the present time, there exists a temporary exception to this ruling, the result of the generous consideration of our committee on reorganization in trying to provide for the retention of membership in this Society of a small number of physicians (125 all told) who were members here, but who, for one reason or another, were not members of their county societies. These are known as members-at-large, and while no provision is made in the Constitution for increasing or perpetuating this class, it must consequently soon die a natural death, for there yet appears to be no logical reason for the existence of this membership-at-large in cities and towns where local societies exist, and to the rolls of which societies most or all of these members are eligible. Therefore steps should be taken to transfer this extraneous list of members from the fringe of the Society into the regular channel.

The county societies are reorganized on broader lines, and more liberal policies than heretofore. The aim now is to eliminate personalities and petty jealousies from the local bodies, making it possible for any reputable physician to attain a membership in his county society. This is his due; he has a right to demand it, and only grossly unprofessional acts are intended to debar him from professional association with his neighbors. Personally and socially he may be their associate or not, as circumstances

dictate, but if his professional career will bear a fair criticism he should be taken into the fold and made one with his fellows.

This is, in its way, a mutual benefit—for the Society and for the man admitted. Frequently he is one who has never belonged to a medical society, and it is good that he comes in contact with his peers; that he may place his ideas in open and honest competition with those of other men; that he may rub his brains against theirs. Cerebral friction will often strike a fire that will consume a meaner thought, and raise what otherwise might be an undesirable member of society to a plane above the one on which he lived.

One benefit to the profession of such a membership lies in this fact, that a bad man out of the Society will always be a bad man, but once his name is upon your roll you have it in your power to discipline him, and the severe discipline of a medical society is not only a very serious matter, but is appalling and far-reaching. An edict of suspension from a county society carries with it a like suspension from the State Society, and from the A. M. A. Expulsion from the remotest county society in the remotest State deprives that member of his rank in the higher State and National bodies, hence it behooves one to so conduct himself that his relations with his county society are never in jeopardy.

Reciprocity.

Frequent communications from medical men all over the United States inquiring about the necessary qualifications for the privilege of practicing medicine in California leads us to the consideration of the question of reciprocity in the matter of medical registration. Doubtless the future will develop a uniform standard of qualification which will radiate from one State to another, or from one group of States to another group, having like standards, until the entire country, being pervaded by the same aspiration for high-class colleges, and high-grade men, one uniform National law will govern the amalgamated profession of America. This movement has already begun, and it is not a matter of speculation, but a practical working reality. Some of the Eastern States, having for their own protection stringent laws governing the practice of medicine, have established reciprocal relations with neighboring States whose laws are equally stringent as their own, and the administration of which is carried out with the fairness and fearless honesty which gives to the one that confidence in the integrity of the other which leads to an even interchange of certificates granted by the respective boards.

Our present statute provides for recognition by the Board of Examiners of California, of certificates of those States whose legal requirements are in no degree less than our own; but this exchange or recognition is based upon a reciprocal courtesy being granted by such State to our Board of Examiners.

Since, however, this matter is left to the discretion of the Board of Examiners, I would recommend that the executive body of this Society direct the attention of our representatives on the Board of Examiners to the advisability of taking the initiative in the matter of negotiating such reciprocal relations with the Pacific Coast States, and with them only, at least for the present. Should we seek reciprocity with all the States, the balance of trade would soon be strongly against us. There are hordes of medical men in the Eastern States ready to flock to our shores once the gates are open. Let the pressure against the Western portal come from without, rather than for us to throw down the bars and bid them enter. A few years will bring the advance guard; let us make haste slowly.

The Medical Practice Act of 1901 has now been in force for two years. Under its provisions we have had not only a greatly diminished number of applicants for registration in California, but there is evidently a proportional increase in the quality of the men applying. With minor exceptions, medical colleges generally have worked in harmony with the spirit of the law, lending their aid and moral support toward maintaining the educational standard of our State in fair comparison with our neighbors, both East and West. Efforts have been made, and will in future be made, either to strike the law from the statute books, or to so mutilate it as to make it practically useless. Though we may feel secure in the consciousness that we are working for the common good and well-being of the profession at large, nevertheless we must not for a moment forget that there are those among us who will seize upon each and every opportunity to overthrow, or try to overthrow, a part or all that has been gained. Such efforts were made during the session of the State Legislature just closed, and were based upon the statement that this Society, owing to its limited membership, was not representative of the thought and wishes of the profession generally. The friends of the legislative efforts of the past two years have taken the ground that this Society was the largest, and practically the only organized body of medical men that was in any actual way representative of the entire State; that it was the privilege and the duty of this body to take the initiative in the matter of securing suitable protective legislation, which would prove the greatest good for the greatest number. The profession at that time was but partly organized, as compared with its condition to-day, but the great unorganized mass was incapable of taking in hand a matter which demanded the judgment and support of organization; hence, I say that it was eminently the function of this State Society to prompt and support the present law.

To-day our status is somewhat different; and owing to our increased, and increasing, bond of fellowship, our strength is more in accord with the spirit of the times. I speak of our Legislative strength. During a limited experience as a lobbyist, I learned in a very practical way what an immense influence on legislation can be wielded by medical men, and more particularly so when the scattered individuals of an entire State are of one mind, and move up in solid phalanx for a given purpose. If the power of the Society was so potent with but a few hundred members, how much more influential must needs be its sway when backed by over one thousand members of the most active portion of the allied societies. With its present growth and unity of interests, this Society is practically master of its own destiny. Its legislative force is a positive factor; its power of opposition is equally great, so great, in fact, that efforts to thwart its will must be made and argued on the floor of this assembly, not at Sacramento. Measures meeting the disapproval of this Society are destined to meet with an opposition very difficult to surmount. On the other hand, when it does agree upon a given policy, and lends its whole force and authority for a fixed purpose, there is little to fear for the final result.

Dr. Wm. Watt Kerr, in his Address on Medicine, called attention to the very extensive variety of the clinical material to be found on the Pacific Coast, due largely to our relations with the Orient. The advances in the technique of

diagnosis were touched upon, and attention called to the many peculiar cases that were heretofore wrongly diagnosed. Dr. Kerr's oration will be found in full elsewhere in the JOURNAL.

The Address on Surgery, by Dr. Granville Mac Gowan, of Los Angeles, dealt not with a résumé or encyclopedic account of many questions in surgery, but with a general consideration of the status of surgical work upon the prostate.

In the absence of Dr. G. W. Davis, chairman, the report of the Memorial Committee was read by Dr. Robert F. Rooney, of Auburn, and will be found on page 171 of the JOURNAL.

After the reading of the report of the Memorial Committee, on motion carried by a rising vote, the Society adjourned in memory of those members who had died during the past year.

AFTERNOON SESSION.

The afternoon session of Tuesday opened with a symposium on Tuberculosis, the paper by Dr. Norman Bridge, printed elsewhere in this number of the JOURNAL, being the first paper of the list. All of the papers were read, and discussion was then opened on all.

Dr. W. H. Flint, Santa Barbara, opened the discussion and said, that, in his opinion, all physicians should be greatly cheered and encouraged by the general agreement of those who are closely studying the disease; that most of these patients can be cured when properly treated. There is great difficulty in absolutely controlling patients, but when this can be done, the results are good.

Dr. Walter Lindley, Los Angeles, said the paper of Von Adelung was as excellent a statement of the case as could be prepared. Open air treatment, living out of doors all the year round, together with generally looking after minor conditions, he considered the proper treatment. Cocodylote of sodium, used hypodermatically, he considered an excellent way of giving the patient arsenic without upsetting the stomach.

Dr. C. M. Richter, of San Francisco, thought there was more danger in the cough than in the expectoration of tuberculotics. A sudden cough might expel bacteria to a distance of many feet. He desired to urge legislation requiring the confinement of tuberculous patients in sanatoria, under the supervision of the local boards of health.

Dr. Milton, of Oakland, considered house infection serious.

Dr. E. A. Follansbee, Los Angeles, discussed the use of recepticles for sputum. Persons spit at, and not in vessels.

Dr. Geo. L. Cole, of Los Angeles, thought that the placing of this symposium first on program was a good indication of the importance of the subject, and its recognition by the profession. The invisible sputum coughed out is also a serious matter.

Dr. Wm. LeMoyne Wills, of Los Angeles, said, if it is true one-seventh of men die, then it should be demanded that the sick poor be taken care of by public funds, and that this awful death rate be cut down. The present condition of tuberculous wards is disgraceful and should be done away with. The physician should be a practical politician on legitimate lines; get out and vote.

Dr. J. C. King, of Banning, referred to the desirability of an anti-tuberculosis league, of general scope in the State. Daily observation of patients absolutely necessary.

Dr. Freeman, of Fullerton, dwelt upon the political side of the question as to what could be done.

Dr. Geo. A. Hare, of Fresno, was impressed with the fact that here was a place where prevention of tuberculosis is easy, and this should be borne in mind. Something more than education is necessary in dealing with the question, but education should be thorough and commence in childhood. Cold water, air and rest, very valuable.

SECOND DAY, APRIL 22.

"Uncinariasis in California," by Dr. Philip K. Brown, was discussed along the general lines of the paper as read, by Drs. George H. Evans, C. M. Richter, H. A. L. Ryfkogel, each referring to his cases, as reported, and closed by Dr. Brown who gave further details of the manner of obtaining stools for proper determination of the presence or absence of ova.

"The Recent Epidemic of Smallpox in California," by Dr. D. Crosby, of Alameda, was discussed by Drs. Lucas, of San Luis Obispo; Clark, of Alameda; Parkinson of Sacramento; Follansbee of Los Angeles; Gardner of Brentwood; Von Adelung of Oakland, and closed by Dr. Crosby.

Dr. Philip King Brown read a paper on "Three Cases of Infection with Strongyloides Intestinalis: Autopsy Findings in One Case."

During the evening executive session, the question of publication and changes in the constitution and by-laws, received much attention, and were referred to a special committee, consisting of Drs. Parkinson, Rixford, Barbat, Hodghead and Rooney.

Wednesday morning session of the Eye section opened with the paper on "Headache as a Symptom," by Dr. H. Bert Ellis, of Los Angeles, which was discussed by Drs. Hulen, Briggs, Powers, Robertson, Powell, Pischel, some differences of opinion being expressed as to the value of other pathological conditions when combined with presence of eye-strain.

Dr. Geo. H. Powers' paper, "A Case of Mastoid Disease With Mental Disturbance," was, by resolution, called up out of the program and read, as Dr. Powers was obliged to leave. It was discussed by Dr. Payne.

On motion, the paper by Dr. Geo. Goodfellow, on "Decapsulation of the Kidney for Bright's Disease," was advanced on the program, and read.

Discussion was opened by Dr. Tait, who thought patient was in toxic condition, not necessarily uremic, and that the extensive drainage was the best thing that could have been done. He agreed in believing that careful study of patient before operation, most valuable; lack of this makes Edebohls' results of little value. Dr. Rosenstirn agreed with Dr. Tait in criticising Edebohls for lack of data. He questioned whether the operation on the kidney, or the extensive drainage after the operation, was the cause of improvement of the patient. Dr. Bazet referred to a somewhat similar condition, on which he had operated some months ago, removing a section

of the kidney for examination. Dr. MacGowan described some operations by Edebohls, seen by himself, and expressed his opinion in the absolutely honest intent of Edebohls. He did not think the operation should be recommended as a cure of Bright's, for many such patients live useful lives for years. In Goodfellow's case the operation was quite justifiable. Dr. Crowley discussed the question from the standpoint of technique, and said he punctured the capsule and cut it on a blunt protector, thus not injuring the kidney. It is also difficult to sew the capsule without injuring the kidney.

Dr. Pischel commented on the indications of the retina, which go to show conditions elsewhere demanding relief.

Dr. Goodfellow closed the discussion and said he thought very extensive incisions, with free drainage, did as much as anything, and could see no future for the operation.

Dr. Hulen's paper, "The Cure of Cross Eyes," was then read, and generally discussed.

While these papers were being considered, the session in the assembly room discussed the following papers: "Was it a Case of Meningeal Hemorrhage, Hysteria, or Malingering?" by Dr. K. J. B. Wright, of San Jose, discussed by Drs. Brainerd and MacBride; "Rupture of the Uterus," by Dr. D. A. Hodghead, San Francisco, discussed by Drs. Cole and Weatherbee; "Occipito-Posterior Positions," by Dr. Geo. L. Cole, of Los Angeles, discussed by Drs. Hodghead and Malaby; "Prevention of Perineal Lacerations," by Dr. E. N. Ewer, of Oakland, discussed by Drs. Malaby, Sherman, Topping, Parker, Bullard of Fresno, Maher; "Repair of the Perineum by Continuous Removable Suture," by Dr. Geo. B. Somers, discussed by Drs. Weatherbee, Buteau, and Krone.

The section on Eye, Ear, Nose and Throat was closed with the paper by Dr. Redmond W. Payne, on "A Case of Chronic Suppurative Disease of Both Frontal Sinuses, Both Maxillary Antra, the Ethmoid Cells on Right Side, and the Sphenoid Antrum," which was discussed by Dr. Krone.

The session of Wednesday afternoon was opened with the report of Dr. W. S. Thorne, of San Francisco, on "Medical Education and State Examinations," in which were considered the bearing of the new medical practice law upon existing conditions, and its actual working during the past year. The difficulties of the system of actual examinations on a high standard were carefully considered, and the methods taken to overcome them, outlined.

Dr. E. E. Kelly moved the acceptance of the report, and the endorsement of the attitude of the present Board of Medical Examiners, as expressed in the report. This was seconded by Dr. Thomas W. Huntington, who spoke along the line of endorsement of the present board. The motion was then put and carried.

On the afternoon of Wednesday, the Genito-Urinary section met, the first paper received being the report of the chairman, Dr. Louis Bazet, whose paper entitled "Indications and Counterindications for Prostatectomy," was discussed by Drs. Granville MacGowan, Rigdon, Krotoszyner, Eaton and Norton. "Determination of the Functional Capacity of the Kidneys, With Special Reference to Kidney Surgery," by Dr. Krotoszyner, was read, and discussed by Drs. Eaton, MacGowan and Rigdon. "Contracture of the Vesical Neck," by Dr. R. L. Rigdon, was also extensively discussed by the members present.

LEGISLATIVE BRANCH.

Dr. George H. Evans presented his report as Secretary, as follows:

SECRETARY'S REPORT.

As Secretary of the Medical Society of the State of California, I wish to make the following report:

At the last meeting of the Society a new constitution and by-laws were adopted, among its many provisions being one for the affiliation of County Medical Societies. Agreeable with said provision, I sent a letter, together with a copy of the constitution and by-laws, to the secretary of each County Society then known by me to be in existence, notifying him of the change and inviting the co-operation of his society. I am pleased to be able to report that all of these societies, with two exceptions, have responded to the invitation and are now regularly affiliated with the State Society. They are as follows: Alameda, Fresno, Los Angeles, Marin, Orange, Placer, Riverside, Sacramento, San Diego, San Francisco, San Joaquin, Santa Clara, Yuba and Sutter. Besides these, new affiliated societies have been organized in the following counties: Contra Costa, Humboldt, San Bernardino and Santa Barbara. The societies that have not affiliated are the Tri-County, made up of the physicians of Santa Cruz, Monterey and San Benito counties, and the Kern County Society. Communications were sent to the secretaries of these societies at the same time as to the others, and not hearing from them, another was sent in November, urging that action be taken by them. A clause in the constitution of the Tri-County Society admitting other than regular physicians to membership has prevented its affiliation. This is unfortunate, not only because it gives no representation to a large area of the State, but particularly because the restrictions in this respect in our own laws are at variance with the spirit manifest in many other State Societies, where any reputable and legally registered physician, who will agree to practice nonsectarian medicine, is eligible for membership. Several of the County Societies now affiliated were obliged to amend their constitutions in this respect to make them in conformity with ours. It is urged that the House of Delegates seriously consider the advisability of such a change in our constitution.

The secretary of the Kern County Society informed me that it was at work on its constitution and by-laws, but I have heard nothing further from it. With these exceptions the work of affiliation has been most satisfactory, and I confidently look forward to a much greater increase during the next year, as the Society demonstrates to the profession at large the advantages that accrue to the individual from membership therein. I have made efforts to interest men in different sections of the State where County societies do not exist, El Dorado, Kern, Mendocino, Merced, Monterey, Napa, Nevada, Santa Cruz, Sonoma, Stanislaus, Tehama, Tulare and Yolo, and all counties where affiliated county societies should exist, because they have a fair proportion of physicians, and in every instance contain one or more members-

at-large of this Society. It is here that the superior features of the Councillor System, which is a prominent feature of the constitution for State Societies adopted by the American Medical Association, is apparent. By this provision each Councillor is required to visit every county in his district at least once a year for the purpose of organizing component societies where none exist. The Board of Trustees of our Society have similar functions to those of Councillors. It is suggested that this feature be added to their duties. In sparsely settled districts two or more counties should unite for purposes of organization, or their physicians should unite with the Society of a contiguous county.

The California State Journal of Medicine under the able editorial supervision of Dr. Jones, instituted during the year by the Board of Trustees, has rendered me most valuable assistance in this matter of affiliation, and has already demonstrated its possibilities as a means of keeping the State Society a living issue in the interval between meetings. A change as radical as the publication of a journal was bound to create criticism in some sources, but the criticism which it has drawn does not redound to its discredit. The Society has here followed the example of such progressive State bodies as New York, Pennsylvania and Illinois. It is hoped the House of Delegates will see fit to continue this publication and appropriate the necessary funds to keep it up to the high ethical standard it has already set for itself. It is also urged that the delegates from the various county societies will regularly send in their proceedings for publication. The Journal is the official organ of the State Society, and the county organizations are component parts thereof. A little energy could also be well expended by each member by materially assisting the advertising department. The Journal could be made to pay for itself without any additional expense to the Society if every member would use his influence in this direction.

The Society should also undertake the publication of a State Medical Directory, though on somewhat different lines from that followed by the Board of Medical Examiners in their previous publications. The fact that no directory has been published for more than a year has demonstrated that such a yearly publication is absolutely necessary to every physician. I am daily besieged with inquiries concerning its issuance. This should be a State Society publication, and should be for gratuitous distribution among its members only, instead of being distributed among the entire profession of the State. If this Society is going to make every physician feel that he cannot afford to remain outside its ranks, and it certainly does not fulfill its mission until it does do this, then it must offer him something more than the privilege of attending its annual meetings and taking part in its deliberations. If it is going to issue its publications for its own members, and not for gratuitous, indiscriminate distribution, it is going to thereby make membership in it a necessity to every physician. This directory should be published under the auspices of the Committee on Publication, and will require funds for that purpose. It should in no sense be an individual enterprise. There is an immense amount of work connected with it, and some one, preferably a layman, should be employed for the purpose. There is no doubt that its publication would prove a great source of revenue to the Society, because, as stated before, no physician, be he a member or not, can afford to be without it. This has been the experience of the other State Societies that have undertaken this work. The New York association publishes a tri-state directory, comprising New York, New Jersey and Connecticut, and has been doing so for five years. Its secretary informed me some time ago that it brought them a very handsome revenue, and that there was a constantly increasing demand for it, not only from physicians outside the State Society, but from business houses throughout the State. Such a directory should be in every hotel office and drug store in the State, and it would be if such a feature as a block directory of physicians in cities were incorporated in it. The matter of advertisements is unimportant. Considerable funds, of course, can be raised in this way, but the Society should take the financial responsibility of this important matter. I have urged this in my last two annual reports, and it is hoped the Society will now take some action.

The library of the State Society consists of files of the different State Transactions and Journals, and has been placed in the Mechanics' Library, San Francisco, where it is accessible to members of this Society.

The correspondence of the State Society is becoming greater all the time. A great many letters are dictated monthly, and during the last few months the daily correspondence has been heavy. It has been necessary for me to have clerical assistance in my office to handle the detail work. I have inaugurated a card system of the members, and desire to have a similar system of non-members throughout the State. This can be accomplished with the aid of the secretaries of the county societies. A complete card directory of the physicians of the State should be in my possession. I would request that the House of Delegates authorize me to purchase a filing cabinet in order to properly handle this work.

Through an oversight, no provision was made in the new constitution for permanent members. There are sixteen (16) such members. Six (6) of these, being active members of local affiliated societies, of course become active members of this body. The others, however, have rights which cannot be ignored. I have written to each of them requesting that they ally themselves with local societies where practicable. Some of them object to this, and provision should be made for them in the constitution by means of an amendment.

The matter of delinquent members has given me considerable trouble during the year. No provision exists for dropping such from the roll, and some of them are now affiliated through local societies. On August 1, I sent a circular letter to each one calling his attention to his delinquency, and on October 20 sent another. At a recent meeting of the Board of Trustees I brought up the matter, and at their suggestion I sent out a third letter. These communications have been partly successful. Five hundred and fifteen dollars was collected by this means. One hundred and eighty-five dollars is, however, still uncollected in spite of these efforts. (A list of delinquent members was here presented.)

It will be impossible to force affiliated members to pay if they choose to repudiate this debt. I would suggest as a partial remedy, however, that an amendment of Article I, section 4, of the by-laws be submitted, dropping members-at-large for non-payment of dues.

The Society has no associate members. Provision for such exists, but would appear to be useless. A physician on removing permanently from the State would naturally ally himself with the society in the State to which he goes. Such provision will be an unnecessary expense to the Society, and will complicate the membership roll. I would suggest its elimination.

At about the time the new constitution and by-laws were ratified, a committee appointed for the purpose by the American Medical Association drew up a constitution for State societies which it was desired

all such bodies should adopt, in the interest of uniformity and in order to carry out the general plan of organization of the profession throughout the land. The only radical change that we would find necessary in order to make ours conform thereto would be one relating to members-at-large. This Society has 119 such members, 56 of whom live in counties where county societies exist, and whose influence should be exerted in developing these integral parts of our Society. Not enough importance is attached to component bodies. I have been much discouraged and hampered in my work during the year by the apathy of the officers of some of them. The members-at-large should add their influence by joining these bodies where such exist. Where they do not exist, they should organize them.

The membership of the Society is as follows:

Affiliated members by county societies:

Alameda	89	
Contra Costa	14	
Fresno	33	
Humboldt	20	
Los Angeles	203	
Marin	10	
Orange	20	
Placer	12	
Riverside	19	
Sacramento	44	
San Bernardino	22	
San Diego	19	
San Francisco	370	
San Joaquin	26	
Santa Clara	28	
Santa Barbara	15	
Yuba and Sutter	11	
		955
Members-at-large		118
Total active members		1,073
Honorary members	23	
Permanent members	10	
Deceased members	6	
		39
Total, year		1,112

Dr. Elmer E. Kelly presented his report as Treasurer. (Treasurer's report will be found on page 187.)

The Board of Trustees presented its report as follows:

TRUSTEES' REPORT.

Gentlemen: In harmony with section 6, Article III, of the By-laws of this Society, the Board of Trustees desire to present to you the following brief summary of the work they have done during the year that has just closed.

The Board held its first meeting in the Y. M. C. A. building, San Francisco, July 18, 1902, and organized by electing Dr. C. G. Kenyon chairman, and Dr. Philip Mills Jones secretary.

By resolution, the chair appointed an executive committee of five to represent the Board and transact business when a full quorum of the Board could not be obtained at a regular meeting. This committee consisted of Doctors Rosenstirn, Morton, Adams, Kenyon and Jones.

During the year subsequent meetings were held by the Board, October 9, 1902; March 11, April 7 and April 16, 1903.

One of the first matters to engage the attention of the Board was the publication of the transactions of the State Society. After careful consideration the Board was convinced that the interests of the Society could be better conserved by publishing the transactions and all matters connected with the Society through the medium of a monthly journal rather than by issuing the annual bound volume of transactions. They believed that a live State Medical Journal could be made the means of enlisting the interests and co-operation of a much larger number of the physicians of the State, and would serve as a common channel of communication between the State Society and its individual members, and would serve to unify and harmonize the various interests of the profession of the State. They therefore decided to publish the California State Journal of Medicine, and requested Dr. Philip Mills Jones to edit and publish the same on the following conditions:

Dr. Jones obligated himself to edit, publish and distribute free of charge to all members of the Society a monthly journal, consisting of not less than twenty-four pages of reading matter, for the period of twelve months from the date of the first issue, the Publication Committee of the Society to reserve the right to exclude or reject such advertisements as in its opinion would be objectionable or undesirable.

Dr. Jones was to receive the sum of $600, payable in monthly payments of $50, and to retain all moneys received from advertising. He was also authorized to print 2,000 extra copies of the first three issues of the Journal, a copy to be sent to every physician in the State, at an additional expense of $29.50 per thousand, this being the actual printing bill.

Upon reconsidering the question, however, it was concluded that as the agreement made with the editor obligated the Board of Trustees to be elected at this meeting, it would be more satisfactory to make yearly arrangements from the time of one meeting of the State Society to the time of the next succeeding meeting. To this end the following resolutions were passed unanimously by the Board:

Resolved, That with the consent of Dr. Jones, the Board of Trustees take over and assume the assets and liabilities of the California State Journal of Medicine, as per the financial statement filed, and that the present existing contract with the editor to edit and publish the Journal be dissolved, with a view of making renewed arrangements.

Resolved, That the Board of Trustees heartily express their satisfaction and approval of the able manner in which Dr. Jones has conducted and managed the Journal of the Society, and that the cancellation of the contract with Dr. Jones is not considered as reflecting in any way upon the management of the Journal, and recommend to the incoming Board of Trustees that he be continued as editor of the Journal.

The Mechanics' Institute has been made the official repository of the library of the Society, and we trust that the editor of the Journal, acting in concert with the librarian of the Institute, will secure through the medium of exchange many valuable periodicals and books which will be cared for and at any time may be consulted by any member of the Society. Heretofore no effort has been made to accumulate or care for publications that might be secured in the manner suggested. The great benefit of thus securing the assistance of a skilled librarian in our efforts to build up a library at no cost to the Society is self-apparent.

The Board has accepted in affiliation with the State Society one medical society in each of the following counties: San Francisco, Sacramento, Humboldt, Yuba-Sutter, Marin, Alameda, Santa Clara, San Joaquin, Fresno, Santa Barbara, Los Angeles, San Bernardino, Riverside, Contra Costa, Orange, San Diego and Placer.

It is with pleasure that the Board calls attention to the fact that the State Society now has nearly 1,100 members—almost one-third of the total number of physicians of the State.

Our new Constitution and By-laws have been found to be defective in that no provision was made for the collection of delinquent dues from members-at-large, and also in failing to recognize the class of members known under the old regime as permanent members. A committee consisting of Doctors Kenyon, Hodghead and Davis was appointed for the purpose of presenting to the annual meeting suitable resolutions to cover these defects. That committee recommended the following changes:

By-laws, Article I, section 4. Insert after "such members" in the second sentence, the words, "except permanent members," and at the end of the section the words, "and shall be suspended for two years' non-payment of dues, or for cancellation of certificate."

The Board, acting as Judicial Council, has received the applications for membership-at-large from E. Rockwell Brooks of Bodie, and B. F. Dawson of Cayucos, San Luis Obispo County, and recommends their election by the Legislative branch.

The Board of Trustees recommends the adoption of the plan in use by the New York State Association for some years and recently adopted by several other State medical societies, of securing and having on file a card catalogue or file of every physician in the State, on which cards the changes in address of each physician may be noted. From this card-file the information necessary to compile a physicians' directory, more or less similar to that issued by the New York State Association, could be obtained. The New York State Association has expended some $6,000 in securing a very complete file as indicated. It is estimated that to do the same for California would cost about $2,500. The directory could then be issued, and would probably just about pay the cost of publication. The Board recommends that this matter be referred to the incoming Board of Trustees, with full authorization to use such funds as may be required for the carrying out of the plan, if upon further consideration it shall meet with their approval. (Signed.)—C. G. Kenyon, President; C. W. Nutting, Thomas Ross, F. L. Adams, Philip Mills Jones, A. W. Morton, George L. Cole, George A. Hare, William S. Fowler, William LeMoyne Wills, J. Rosenstirn.

The Publication Committee presented its report as follows:

REPORT OF PUBLICATION COMMITTEE.

To the President and Delegates of the Medical Society of the State of California—Gentlemen: The Publication Committee begs leave to hand in the following report:

In October, the Board of Trustees requested the chairman of this committee to edit and publish a monthly journal to replace the annual volume of Transactions. Your chairman at once secured the services of a trained journalist to act as business manager and attend to the work of securing advertisements and printing and distributing the Journal, the editor turning over to him the amount received from the Society and the promise of such further return as might be secured should nothing unforeseen occur. The Journal has prospered remarkably well, and there is every prospect that by the end of the year it will be self-supporting. The cost to the Society will be approximately $1500.00 for the first year, and $600.00 for subsequent years, and it is strongly probable that in the course of two or three years one-half of the first year's cash can be returned to the Society. The average annual cost of the Journal will then be no more than the average cost of publishing the annual Transactions. The quality of the advertising matter printed is restricted to the very best and most ethical articles, and nothing not strictly ethical will be accepted. No reading notices or paid statements of any kind are permitted in its pages of reading matter.

The editor of the Journal is very desirous of securing reports of the proceedings of all the county societies, and will be very pleased to correspond with any members of county societies who may be willing to furnish the Journal local news and their society reports. The scientific papers written by the members of the Society should be sent to the Journal for publication. Only by the active co-operation of each and every member of the Society can the Journal hope to become the really important medical organ of the State and the State Society. That it can be made successful in this as well as in a purely business way, there is no reason to doubt; but it should have the help of every member of the Society.

In order that the Journal may be admitted by the Post Office authorities as second class matter, it will be necessary to either amend the by-laws or to pass the following resolution; or, preferably, do both:

Resolved, That out of the funds contributed by and belonging to the members of the Medical Society of the State of California, the Trustees are authorized to appropriate such an amount as is necessary to secure the subscription of each member to the California State Journal of Medicine.

The publication of a register or directory of physicians of the State has been abandoned by the Board of Medical Examiners, and its loss is keenly felt. Your committee would urge that some action, either of the House of Delegates or the Board of Trustees, be taken at once to the end that such a directory be published by this Society.

(Reports of the Board of Medical Examiners and of the Committee on Medical Legislation and Education will be printed in the June issue of the JOURNAL.)

Paso Robles, on motion, was nominated for the next place of meeting. There was some discussion as to there being a proper hall there for the meetings. Dr. Asay, of San Jose, extended an invitation to the Society, to meet in that city. Los Angeles, through one of its delegates, extended an invitation to meet there. A vote being taken, Paso Robles was selected as the next place of meeting.

ELECTION OF OFFICERS.

Dr. Kerr placed in nomination the name of Dr. H. Bert Ellis, for the office of president, for the ensuing year, calling attention to his long service in the State Society. Dr. Wills seconded the nomination. Dr. Harry M. Sherman also seconded the nomination of Dr. Ellis, calling attention to the ability which Dr. Ellis has shown in the affairs of the American Medical Association, and as generally acknowledged. There being no other nominations, the Secretary was instructed to cast the ballot.

Dr. J. Henry Barbat nominated for the office of first vice-president Dr. W. H. Flint of Santa Barbara. No other nominations being made, the Secretary cast the ballot.

For the office of second vice-president Dr. W. LeMoyne Wills placed in nomination Dr. Geo. A. Hare. Nominations closed, and Secretary cast the ballot.

For the office of secretary Dr. Brainerd placed in nomination Dr. George H. Evans. The nominations closed, and the President cast the ballot.

For first assistant secretary Dr. Kerr nominated Dr. H. B. Hill. Nominations closed and Secretary cast the ballot. For second assistant secretary Dr. Mallaby was nominated. Nominations closed, Secretary cast the ballot.

For treasurer Dr. J. Henry Barbat nominated Dr. E. E. Kelly. Nominations closed and Secretary cast the ballot.

Board of Medical Examiners, Dudley Tait, San Francisco; F. M. Pottenger, Los Angeles; D. E. Osborne, St. Helena; W. S. Thorne, San Francisco, and S. H. Buteau, Oakland, were placed in nomination. Dr. Wills suggested replacing Dr. Thorpe for Dr. Pottenger, and Dr. Pottenger's name be withdrawn. Dr. Parkinson objected to Dr. Tait, and some discussion ensued, in which Dr. D. A. Hodghead stated that he objected strongly to Dr. Tait's election for the reason that three of the medical schools on the Coast desired his election to the Board, and the College of Physicians and Surgeons, San Francisco, objected. The question was also discussed by Drs. Moulton, Wills, Parkinson, Kerr, King, Asay and Krone. Moved that ballot be taken for Board of Examiners individually. Drs. Barbat, King and Evans appointed tellers. Ballot on Dr. Dudley Tait resulted in twenty-six votes for and four votes against, and Dr. Tait was declared elected to the Board. Ballot was taken on the name of D. E. Osborne, who was elected twenty-nine to one. Ballot on W. S. Thorne resulted in twenty-nine votes for and one against, and he was declared elected. Ballot on Dr. S. J. Buteau resulted in thirty votes for and no votes against, and he was declared elected. Ballot on Dr. Thorpe resulted in twenty-nine votes for and one against, and he was declared elected. For alternates, Drs. C. J. Burnham, E. M. Kirk, F. M. Pottenger were nominated, the nominations were, on motion, closed and the Secretary cast the ballot for these three nominees, whereupon they were declared elected.

Dr. J. Henry Barbat nominated for the Board of Trustees C. G. Kenyon, C. W. Nutting, Frank L. Adams, Philip Mills Jones, A. W. Morton, G. A. Hare, Julius Rosenstirn, F. C. E. Mattison, J. G. Baird, G. F. Reinhardt, Thos. Ross. Ballot cast and these men elected.

For delegates to American Medical Association, Drs. C. G. Kenyon and Philip Mills Jones were nominated and elected to serve with Dr. H. Bert Ellis, elected last year. Drs. C. F. Ball, Frank Adams and H. G. Brainerd were nominated for alternates, and elected.

Judicial Council reported by its chairman, Dr. C. G. Kenyon, as follows:

In the matter of a protest from certain practitioners of San Diego County:

After carefully considering a protest referred to your Council by certain practitioners of San Diego County, and after hearing both a representative of the protestants and of the Society, the following resolution was introduced and passed unanimously:

Resolved—(1) That the Judicial Council notify the protestants that the San Diego County Medical Society is affiliated with the Medical Society of the State of California.—(2) That the Council earnestly recommends that further effort be made by the San Diego County Medical Society to harmonize the personal differences and difficulties of the physicians of San Diego County, and endeavor to obtain, eventually, a united and harmonized whole.

On motion report adopted as amended, and as here published.

On motion, applications for membership at large laid over for one year.

A preamble and resolution recommending the appointment of Dr. J. M. Williamson of San Francisco, to the State Board of Health to fill the vacancy caused by the death of Dr. M. Gardner, were carried.

A resolution was passed covering the matter of postal regulations to admit the JOURNAL to second-class matter.

Other questions of minor importance were voted upon, and the Legislative Branch adjourned.

THURSDAY MORNING.

In the section of Hygiene, Sanitation, and Climatology, papers read and discussions were as follows:

The paper of Dr. Richter on "A Comparative Study of the Climates of Southern California and Other Health Resorts, With Special Reference to Personal Observations at Santa Barbara," was discussed by Mr. A. G. McAdie, U. S. Weather Bureau, who said he was to criticize the paper, as the whole State against Santa Barbara.

He thought a more careful study of climatology by doctors would be of benefit to climatologists. As yet we have no measure of electrical potential, purity, composition. We have only temperature, humidity and pressure. Santa Barbara presents—1, proximity to the sea; 2, mountains—these two always mean more or less winds; 3, reflexes of those on each other; 4, general air circulation in all western counties. Here we have the ideal combination of sea and mountains, and circulation of air is gradual and not strongly stimulating. Santa Barbara may be considered as like San Francisco, with the objectionable features of San Francisco removed. The tremendous pressure of air here is lacking. The information in Dr. Richter's paper is the work of years of observation, Santa Barbara records cover 39 years' rain, and 19 years on other conditions. Dr. Richter's records have checked those of the weather bureau and have been valuable in showing great differences in climate in four miles.

Dr. Walter Lindley, of Los Angeles, said it looks as though one ought never to die if he lived in Santa Barbara. Dr. Richter's paper shows great study and is to be highly commended. Santa Barbara presents

one climate; San Diego another; Auburn another, and doubtless all are satisfactory and beneficial to various persons. Aseptic air, or nearly aseptic air, can be found on the desert. I am interested in mountain climate, and especially in Strawberry Valley, which is walled in by mountains and hence there are no strong winds. There is nothing to especially indicate any one climate for all persons.

Dr. W. H. Flint, Santa Barbara, said he was very much gratified at the carefully drawn tables of Dr. Richter. The differences in climate between shore and foot-hills was remarkable. Those having any bronchial or similar trouble should go to the foothills.

Dr. Anderson, of Santa Barbara, said he had lived here twenty-five years and kept more or less records on climate of Santa Barbara. He had found much variety, and tables taken in lower part of town were quite different from records taken in the foot-hills, especially in the matter of humidity. Night winds, high up in the foot-hills, are common and sometimes very strong, and had a stimulating effect; in the daytime there is little or no wind. Night temperature varies but little, but the day temperature varies much more in the foot-hills than lower down.

Dr. Frank Baker, of San Diego, wanted to know if any records of humidity of high altitudes of Coast Range had been taken. Such altitudes in New Mexico should be compared with similar locations in California.

Dr. Lindley said they had kept records for a year of relative humidity at altitude of one mile at Strawberry Valley. Humidity at night is about 30 and towards morning reaches about 45.

Mr. McAdie said the question in fall of humidity at Strawberry Valley was brought up by the Climatologist Society last year. Work will be carried on, and in a year we will know whether there is a true fall in humidity or not.

Dr. Beckingsale said the conditions here are characteristic of the State generally; great variation of climate is found at points separate only a few miles.

Mr. McAdie called attention to a very significant matter. During cold winter the night temperature at Pine Crest was 62 degrees and at Santa Barbara 49 degrees.

The paper of Dr. Mary B. Ritter on the "Relation of the Physician to Preventive Medicine; a Study of the Health of University Girls," was discussed by Dr. Carl R. Krone, Oakland, who said the paper puts together many facts that have been held by many of us. I have held that study is natural, and not the basis of ill health. Questions of sanitation, posture, sleep, diet, etc., are really the questions at fault in causing ill health in college. When the youth enters college he feels grown up, and his desire on gaining his freedom from home control leads him to play. Discipline should be to uplift and to improve self-respect. Physicians should teach their patients how to stand, to breathe, and to face life. Fifteen minutes twice a day of light but proper exercise will be of great benefit to any student; he will go to bed and forget the worry of the day and sleep well.

Dr. G. F. Reinhardt, of Berkeley, did not know how fully this study was being gone into amongst the women students, and was much pleased to hear Dr. Ritter's paper. The lectures on personal hygiene given by Dr. Ritter are undoubtedly of great value Men students are more healthy than women, as a rule.

Dr. L. W. Allen, San Francisco, said trouble begins early in school life, and the Society should come in contact with all boards of education throughout the State, by means of the Journal or otherwise.

Dr. Follansbee, Los Angeles, said that most valuable papers get into the waste baskets unread. It would be well for each one present to personally see that boards of education become acquainted with the facts of this paper. Such boards need the instruction contained in the paper, and I will see that it is presented to Los Angeles County Board of Education. I try to teach preventive medicine in my chair in the medical department of the University of Southern California, where my work is diseases of childhood.

Dr. Ritter, in closing, said that the matter of posture is a most important question. Children stand well when like young animals they are at play, but when they get into school and meet with bad air and surroundings, and ill-fitting desks, they lose their erectness and easy posture.

Dr. Dryer, Santa Ana, moved that the paper be sent to the *Western Journal of Education*, San Francisco, which carried.

The paper of Dr. Philip Mills Jones on "The Proposed National Bureau of Medicines and Foods" gave an outline of the abuses perpetrated by manufacturers of drugs and foods, and described the purposes of the proposed bureau to correct these abuses.

Dr. Jerome T. Gardner said that the matter of impurity of drugs, chemicals, and foods is most important, and every doctor is as much interested in it as he should be in making war upon patent medicines.

Dr. Carl R. Krone read a paper on "The Physiology of the Cell in Its Relation to Therapy,".

Dr. H. G. Brainerd of Los Angeles, said he was glad to hear that the secret of life is not due to chemical action, but that there is decidedly something more to be thought of.

In the section on Pediatrics Dr. George H. Evans read a paper on "The Necessity of a Pure Milk Supply for Infant-Feeding," advocating the appointment of medical men as inspectors.

The subject was discussed by Drs. Frances Sprague, Burrows, Pottenger and Hare.

Other papers on the program, in this section, were "Diseases Due to Faulty Nutrition," by Dr. W. N. Sullivan, San Francisco; "The Home Modification of Milk," by Dr. E. W. Twitchell, Sacramento; "Diphtheria," by Dr. J. Maher, Oakland, and "A Few Illustrative Cases of Diphtheria," by Dr. F. G. Burrows.

In the Surgery and Anatomy section the papers and authors were, "Abdominal Drainage," by Dr. Stanley Stillman; "Surgical Interference in Hanot's Disease," by Dr. Julius Rosenstirn; "Appendicitis Surgically Considered, With Tabulated Report of Fatal Cases," by Dr. W. W. Beckett, Los Angeles; "A Few Remarks on Gastric Surgery," by Dr. Dudley Tait; "The Surgical Occlusion of Large Arteries by a Gradual Method; Its Relative Advantages, Together With an Experimental Inquiry as to Its Feasibility," by Dr. R. T. Stratton, Oakland; "Un-united Fractures of Bones of Lower Extremity; a Report of Cases," by Dr. Wm. LeMoyne Wills, Los Angeles; "The Injection of Paraffine for the Correction of Deformities," by Dr. A. W. Morton; "The Correction of Deformities Following Anterior Poliomyelitis by Subperiosteal Implantation of Tendons of Unaffected Muscles," by Dr. James T. Watkins; "Report of a Case of Gallstones, Infective Cholangitis, Multiple Abscesses, Destruction of the Right, Caudate and Quadrate Lobes, and Hyperplasia of the Left Lobe," by Dr. Harry M. Sherman; "Value of Blood Pressure Observations in Surgery," by Dr. Wallace I. Terry.

(The Address on Surgery by Dr. Granville MacGowan, of Los Angeles, will appear in the June number of the JOURNAL. The official minutes of the meeting will be printed as soon as possible after the stenographic report is finished.)

REPORT OF THE MEMORIAL COMMITTEE.

GEORGE WILLIAM DAVIS, M. D., Chairman.

To reward the deserving, and duly recognize modest merit, is the delight of generous hearts; to honor our dead in this memorial hour, is the last tribute with which this Society can grace the memory of our departed members.

Since our last annual meeting, several of our worthy members have passed away. None of the ceremonies of "putting the dead away from our sight" fell to us, nor the immediate expression of sympathy to their bereaved families. Our combined skill and knowledge cannot avail in this hour—as other men, we can but lay a leaf of laurel on their tombs, and recite their histories and worthy deeds, for they are now so much higher than we that we cannot extend to them the warm grasp of fellowship, or the cheer of our approbation.

Since they in no way need our ministrations, let us learn what lessons we may from the memories we are to honor, and endeavor to infuse a deeper meaning into the terms of praise with which we mention each and every one of our departed co-workers.

The names of those whose recent loss we have sustained and deplore are: Cephas L. Bard, Ventura; Joseph R. Laine, James F. McCone, Gregory J. Phelan, George A. Cutter, Matthew Gardner, San Francisco; George W. Westlake, Red Bluff; Ross C. Kirkpatrick, Los Angeles, and Joseph S. Eastman, Berkeley.

Six died of diseases induced by exposure and the wear and tension incidental to the practice of their profession. Southern, Middle and Northern California are represented in the list, and this fact shows that the conditions that contributed to the death of these members before they had reached three score years, operate without reference to locality. This gives a personal sharpness to the query, "Who next"?

But few gray heads gleam in our annual gatherings, and this fact confirms the census of our country, that the average of life among physicians is shorter than that of any other profession.

The lives of our fellow members were without spot and blemish and, indeed, with creditable pride it can be said that in no body of men has there been so few scandals, so few things that must be either glossed over, or rigorously condemned, as in our State Medical Society—an unwritten testimony to the integrity and faithfulness of its members.

The history of the lives of these worthy confreres, as given to us, have been sufficiently complete to enable us to very clearly read that they were faithful and kind, respected and honored by their fellow men. We can appreciate, in the light of our own experience, the unwritten record of their lives. They were ready to respond to calls for help twenty-four hours of nearly every day of their professional life. Their service in relieving pain, curing disease, was performed unobtrusively. Many of their most striking and beneficial deeds were barred by secrecy and ethics that they kept inviolate. They died before the allotted time; though faithful and diligent, they did not accumulate wealth—facts that are not alluring, and yet very true, of a large majority of the medical profession.

The professional relations of physicians are not as those of other professions, for they pursue their vocations in the shadow of the great realities of Pain and Death, before which the allusions and artifices of everyday life fall away, and reveal the pitiful, suffering human being appealing for help. The physician has to deal with hopes and fears, with sin and crime, not as a judge and executioner, but as the priest of life. Such valuable service cannot be measured by the yard, nor paid for by the pound. Oftentimes, the exercise of his greatest skill, the severest strain on his vitality, both mental and physical, is entirely uncompensated in dollars and cents.

True physicians, who appreciate the greatness of their trust, and the responsibility of their profession, do not always receive the approbation and merited applause which they surely deserve. When they have passed away, seldom are monuments of bronze, gold, or marble moulded or chiseled for them; but, in the the hearts of grateful patients and true professional brethren, they chisel their own epitaphs.

Knowing, as we do, of the anxious cares and wearing responsibilities silently borne, of our brother physicians, would it not be a fitting acknowledgment of the virtues of the honored dead, were we to resolve in this hour to do all we can to smooth the pathway of the living? To determine not to think or speak evil of, or intentionally to wound the feeling of a brother. It is better to endeavor to ennoble, though ever so little, than to crush or ill-treat another. Not only so, but a sincere exhibition of these ennobling qualities will strengthen our mission as a Society, and secure for it a deeper and broader influence in every department of human activity.

We cannot know to-day who will have surrendered to the Inexorable Destroyer before our next annual meeting, but, by taking a little thought, we may so imbue our relations with each other with kindliness and encouragement, that we may know that association with the men and women of the Medical Society of the State of California was a source of delight to our departed members; for it is too true, that a well-

earned appreciation, which is withheld from the living, offers no guerdon to the dead.

"Brief is the time allotted to man upon earth; but the memories of a life nobly rendered is immortal."

CEPHAS L. BARD.

Dr. Cephas L. Bard was one of the prominent physicians of California. He was born in Franklin County, Pa., April 7, 1843. After completing a course of classical studies, he studied medicine. While thus engaged, he responded to a call for volunteers, and enlisted in a Pennsylvania regiment. At the expiration of his term of service he attended lectures at the Jefferson Medical College, graduating from that school in 1866.

He returned to his old home and practiced his profession until 1868, when he removed to Ventura, California. He was the first American physician to locate in that town. He died at his home, where he had lived so long, April 21, 1902.

Dr. Bard was a member and president of the Ventura County Society of Pioneers from the year of its organization. He was president of the Ventura County Medical Society. He was an active member of the Medical Society of the State of California, and was unanimously elected its president in 1897.

Dr. Bard was a prominent member of the Grand Army of the Republic, the Military Order of the Loyal Legion, the Knights Templar, and other fraternal organizations.

Jointly with his brother, Senator Bard, he erected and furnished a hospital in memory of their mother, which was intended to be a gift to his adopted town. The hospital was finished three or four months before his death and was, perhaps, the last public and generous deed of a well-spent life.

Dr. Bard was equipped by a thorough mental and professional culture for the duties of his profession. Assiduous devotion to its duties, his courteous manner, his kindly and ready sympathy, won for him eminence and success. He was one of the men of whom our Society and the profession of this State, may be proud.

GREGORY J. PHELAN.

Dr. Gregory J. Phelan was born in New York, December 23, 1822, and died in San Francisco, November 5, 1902.

He received a classical education at Columbia College, and studied medicine for several years in Massachusetts and New York. He graduated from the University of New York in 1847. He practiced in his native city until 1849, when he removed to California and located in Sacramento. He soon became one of the leading citizens of that place, was a member of the Board of Aldermen, and held other offices under the municipal government.

He was one of the organizers of the first medical society in California, and attended its first meeting in Sacramento, in 1849.

During the flood, in 1850, he volunteered his services to the Town Council, which acknowledged their appreciation by tendering him a vote of thanks.

Dr. Phelan's labors in behalf of the sick during the flood caused him to be selected as physician to the Cholera Hospital, which was opened under his direction. His zeal and general success won for him universal commendation from the inhabitants of the city. In 1853 he was appointed by the Governor a commissioner to represent California at the World's Fair in New York.

Dr. Phelan always displayed a lively interest in educational matters. He was the first Commissioner of Common Schools in Sacramento. In 1854, he was re-appointed to the same office, and, at the general election held in September, 1854, he was elected a School Commissioner. With Dr. Harkness and Mr. Wiggins and the other commissioners, he opened the first public school in Sacramento. He was elected president of the Board of Education in 1858.

In 1854 he assisted in the organization of the Sacramento Society of California Pioneers, of which he became president in 1863, and was director and corresponding secretary for ten years.

From 1861 to 1869, he was City and County Physician of the County Hospital of Sacramento. At the expiration of his eighth term of office, he went to France, where he remained a number of years with his family. Upon his return to California, he was appointed, in 1884, a State Commissioner of Insanity, and held that office till 1892.

During the fifty-five years of public and private life, Dr. Phelan acted honestly and honorably. His kindness of heart and charity were constantly exercised under all the circumstances of his long career. At the time of his death he was the oldest physician in California. Of his three sons, two are physicians.

JAMES F. McCONE.

Dr. James F. McCone was born in Silver City, Nevada., in 1871. He received part of his education in the public school of Virginia City. He was a graduate of Santa Clara College, California, and in 1892 graduated from the Medical Department of the University of California. In 1894 he became a member of the Royal College of Surgeons, London.

He was married in 1895, and died at his residence in San Francisco, December 7, 1902. He leaves a wife and three children. At the time of his death, Dr. McCone held the chair of obstetrics in the University of California, gynecologist to the French Hospital, was consulting surgeon to the City and County Hospital, and to Mt. Zion Hospital. He was a member of the San Francisco County Medical Society, and an active member of the State Society.

Dr. McCone was one of the younger members of this Society and of the profession, yet had attained a high degree of success. He was eminently a practical man, and devoted the energies of his active mind to the practical application of his knowledge. His contributions to the State and local societies consisted of excellent original investigation, and experimentation. Other fruits of his labor are recorded and well-known to his confreres in the city and State of his adoption.

The early closing of a career that promised so great usefulness, is truly sad, but his earnest devotion to duty cannot fail to bear fruit; and he leaves to his relatives and friends pleasant memories.

JOSEPH R. LAINE.

Dr. Joseph R. Laine was born in Canada, in 1846. He came, with his parents, to the United States, when he was four years old. In 1861, when a mere youth, he enlisted, as a private, in the First Wisconsin Regiment, and served until January, 1865, when he was mustered out.

He returned home, and at once engaged in the study of medicine. He graduated from Rush Medical College, Chicago, in 1868, and from the Medical University of Buffalo, in 1876. He began practice in Peoria, Illinois. He removed to Nebraska and prac-

ticed till 1873, when he accepted a position in the army as assistant surgeon.

In November, 1875, he resigned from the army, and, in recognition of his services, he was given a certificate of endorsement by the Army Medical Director of the Platte.

Dr. Laine located in San Francisco when he came to California, on account of ill health. He soon removed to Sacramento, where he enjoyed a large practice for more than sixteen years. For a number of years he had charge of the Sacramento City and County Hospital. He was a member of the Sacramento Society for Medical Improvement, and an active member of the State Society. For eight years he was secretary of the State Board of Health, and in this capacity he became well and favorably known to the profession of the State.

On account of failing health, he removed to San Francisco, where for more than seven years he was medical expert for the Southern Pacific Company. When the College of Physicians and Surgeons was incorporated, Dr. Laine was made its president, but three years ago he resigned, and severed his connection with the college. Dr. Laine was a member of the Knights Templar, and the Grand Army of the Republic. He died December 15, 1902, and leaves a wife and daughter.

Dr. Laine was just and upright in all his dealings. He possessed, in a marked degree, decided convictions on all important matters.

GEORGE WALKER WESTLAKE.

Dr. George W. Westlake was born in Mercer County, Pennsylvania, May 28, 1843.

He began the improvement of his mind in a log school house in his native State. Subsequently he taught school during the interim of the winter months. He attended Hilsdale College, Michigan, then Brown College, Iowa. In 1861 he enlisted in the First Iowa Regiment, was taken prisoner August 10, 1861.

On taking an oath that he would not again take up arms against the Confederacy, he was released. Returning to his native State, he studied medicine with his brother, Dr. E. C. Westlake, with whom he remained till 1863, when he took his first course of Lectures at the Western Reserve College, Ohio.

In 1864 he received the appointment of hospital steward in the One Hundredth Pennsylvania Regiment, and remained till the close of the civil conflict. He resumed his medical studies in the Medical College of Ohio in 1865, graduating from that institution in 1866. He at once began practice in his native State, at one place two years, and at another place, six years. He then removed to the State of Kansas, and from there, in 1875, he came to Red Bluff, California.

On the afternoon of April 4, 1903, Dr. Westlake was suddenly stricken down in his office, of heart difficulty, from which he was a sufferer.

The Doctor was married to a native daughter of his native State. His wife and one daughter, the wife of Dr. Hamilton Stillson, of Seattle, survive him.

Several years ago Dr. Westlake went to New York and took a post graduate course. He was a member-at-large of the State Medical Society. It is said that his medical library was large, but, unfortunately, it was destroyed by fire several years ago. At the last general election he was elected Coroner and Public Administrator of Tehama County.

Dr. Westlake was regarded, by his fellow citizens, as a man of excellent character, and a physician of no mean ability. He was a man of strong friendships, kind and consistent in all his professional and business relations. He had made his profession a success. He always took a deep interest in public affairs and was an entertaining speaker.

Dr. Westlake was a member of the A. O. U. W. and G. A. R., and was laid to rest under the auspices of the Masons, of which order he had long been an active and honored member.

ROSS C. KIRKPATRICK.

Dr. Ross C. Kirkpatrick was born in New Bethlehem, Clarion County, Pennsylvania, in 1842.

He attended two years' lectures at Western Reserve University, Cleveland, Ohio, 1867, 1868. He graduated from Starling Medical College in 1870. He practiced with Dr. W. C. Parker for two years in Carnegie, Pennsylvania. He came to Los Angeles in 1872, where he practiced till his death. Was surgeon for the S. P. R. R. for years.

He was twice married; first, to Miss E. Parker, in 1871, after her death to Miss W. Smith. He leaves a wife and four children. He was associated in practice for years with Drs. W. C. Parker and E. R. Frost.

He was a man of sterling character, and high professional ability.

GEORGE A. CUTTER.

Dr. George A. Cutter was born in Nashville, Tennessee, in 1832. In 1854 he graduated from the Medical Department of the University of New York. Later he took a post graduate course at Bellevue Medical College.

During the Civil War, he was appointed by President Lincoln major of a regiment of volunteers. After the expiration of his service he located in Chicago, where he practiced as a specialist of the nose and throat, until he removed to Los Angeles, California. He came to San Francisco, where he died, March 22, 1903.

Dr. Cutter was an honorable man, and the testimony of those who knew him best is that he was esteemed and respected.

JOSEPH STEELE EASTMAN.

Dr. Joseph S. Eastman was born in Hanover, Indiana, July 7, 1854. Died in Berkeley, California, April 19, 1903.

In 1875 he received the degree of A. B. from the Hanover College. He graduated from Missouri Medical College in 1878. He immediately began to practice. In 1884 he removed to Berkeley, California, where he continuously lived and practiced his profession. He was a member of the Alameda County Medical Society.

For several years he was one of the faculty of the Oakland Medical College and was its first president.

Dr. Eastman was married in 1880 to Miss Lillian J. McDougal, the daughter of the Lieutenant-Governor, who became Governor of this State. She and five children survive him.

He was an elder in the Presbyterian Church. Was also a Mason, an Odd Fellow and a member of the Union Club of Berkeley.

"There is no death! What
Seems so is but a transition.
This life of mortal breath
Is but a suburb of the life
ELYSIUM
Whose portal we call—death."

MATTHEW GARDNER.

The last sad duty of your Memorial Committee is to report the ninth death, during the year, of our number. The task, under any circumstances is not a pleasant one, but to one of your committee this final duty is especially sad, for he has known more or less intimately almost the entire professional life of Dr. Matthew Gardner.

Dr. Gardner was born in Ontario, Canada, in 1845. He died in San Francisco, April 18, 1903.

After completing a classical course, he began the study of medicine and graduated in 1871 from the McGill University at Montreal. In the same year he came to the United States. Stopping at the University of Michigan for a post graduate course, he pushed on to California and located at Davisville, Yolo County. About 1878 he removed to the city of Sacramento. In 1886 he was married to Miss McCune of Dixon, California. In 1894 he was appointed surgeon-in-chief of the Southern Pacific Company and superintendent of its hospital association, when he removed to San Francisco. While living in Sacramento the doctor was one of the physicians of this company.

He was a member of the Sacramento Society for Medical Improvement. After coming to San Francisco he became a member of the San Francisco County Medical Society. For many years he had been a continuous member of this State Medical Society. He was a member of the U. S. Association of Railway Surgeons. He was prominent and highly esteemed in Masonic circles, and by this order his body was laid away. For a number of years he was a director of the California State Library. Governor Pardee appointed him a member of the State Board of Health, and by its members he was elected its president.

After coming to California, Dr. Gardner soon enjoyed a large practice, which was increased on his removal to Sacramento. He was a generous and warm-hearted man, and had many friends who had the fullest confidence in his skill and ability. More than once has the writer heard him spoken of by persons in the humbler walks of life in terms of gratitude. For his kindliness, both in and out of his profession, the doctor was a general favorite, attaching many to him by his genial and frank manner.

He was self-reliant and confident, never hesitating to undertake a difficult operation when necessity required. His industry and methodical order of business enabled him to perform a large amount of work. He was faithful and untiring in discharging the duties imposed upon him. Happy, if when our account is made up, we shall be found, like our honored member, to have performed our service well: then, when in the morning of life, or at its bustling noonday, or in declining years we go hence, our memoirs will be cherished and our names receive more than the passing tribute of a sigh.

DEATHS.

Dr. James R. Todd, graduate Kansas City Medical College, 1883. Died, Gridley, Butte County, April 21, 1903.

Dr. Addison C. Hinkson, graduate College Physicians and Surgeons, San Francisco, 1901. Died April 21, 1903.

Dr. F. R. Waggoner, graduate Missouri Medical College, 1878; a pioneer physician California; until recently member Sacramento Society for Medical Improvement. Died, Sacramento, April 27, 1903.

TROPICAL DISEASES IN CALIFORNIA.*

By WM. WATT KERR, M. D.
Professor of Clinical Medicine, University of California.

ADDRESS IN MEDICINE.

Mr. President and Members of the Medical Society of the State of California:—An opportunity, such as this, may be profitably utilized by making reference to the increasing frequency with which some diseases, that a few years ago were practically unknown to us, are now found in San Francisco, and, I presume, in every seaport town on the Pacific Coast. The variety of cases entering our hospitals was always greater than in any other town with which I am familiar, and visitors from the great continental schools of Europe, as well as from the older schools of America, have frequently remarked this characteristic; but since the Spanish-American war, and the return of our troops from service in the Philippines and China, this distinctive feature has become more prominent, until it is extremely doubtful whether any city can present a more varied medical clinic than is to be found in San Francisco to-day. Evidently, the more recent maladies are not limited to the cities, because the histories of our patients show that many of them are returned soldiers who have visited interior towns since their discharge from the army, but, through straitened circumstances, and inability to obtain work suited to their broken constitutions, have returned to San Francisco in the hope of obtaining assistance and relief.

The possibility of detecting these diseases has been greatly facilitated by the prominence given to clinical laboratory work during the last few years, for many instances of the ailments referred to would have escaped observation and diagnosis had not the differential blood-count, or an exhaustive examination of the feces and urine, attracted the attention of the medical attendants. This does not apply only to the recently imported diseases, but to other maladies that are quite uninfluenced by the national events above mentioned. Between the beginning of the year 1900 and the end of 1902, six cases of trichinosis have been admitted to my wards, while in the fourteen preceding years I remember but one case, and my colleagues on the hospital staff appear to have had a similar experience. This does not mean that trichinosis is on the increase in California. It is more than probable that the improved laboratory methods have enabled us to diagnose cases which we formerly failed to recognize; indeed, there cannot be any doubt that, had we been able to make the modern careful blood examinations, many of the vague cases, which in former days were classed as ptomaine poisoning, or as a peculiar type of muscular rheumatism, would have been found to be examples of trichinosis. But, although this subject

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

is one of great interest, it cannot be followed at present, since our object to-day is to refer more particularly to those maladies with which our new Oriental relations are either bringing us in contact for the first time, or are making us more familiar.

Plague has been so thoroughly discussed, both in the medical and lay press, that it is not necessary to say much about it at this time. Unfortunately, the great weight of expert testimony in this State, and all of that supplied by the federal authorities, goes to prove that plague has existed in sporadic form in California. To an onlooker, the situation in San Francisco is somewhat ludicrous. In February, 1901, the federal authorities sent the Barker, Flexner, Novey committee, who reported on the existence of plague; next they sent Flint, who made a similar report; he was followed by White, who was instructed to report independently to the Treasury Department all cases of plague that came under his observation; but still the people were dissatisfied, and Surgeon-General Wyman visited California last December, and expressed himself satisfied as to the accuracy of the reports furnished by his subordinate officers. Nevertheless, at a meeting of merchants held a few weeks later, it was again suggested that the federal authorities be requested to send an unbiased committee to San Francisco.

The situation, however, is serious, so far as the commercial interests of the State are concerned, but the peril to them comes not so much from bubonic plague, as from the plague of the daily press. The poor policy followed by some of our newspapers in heaping abuse upon the local health authorities, together with the peculiar conduct of members of the State and city governments, has awakened suspicion in other parts of the country that something is being concealed, and there is a manifest want of confidence in California, which competing States have not been slow to use to their own advantage. Such experiences suggest the importance of devising a quarantine that will be efficient, and at the same time will reduce the interference with commerce to a minimum; they also make evident the necessity of allaying public fears by demonstrating how easily contagious diseases may be controlled by the application of modern sanitary methods. Unfortunately, the popular ideas of this disease are based upon such historical events as the Great Plague of London, or the ravages it made among half-starved Asiatic races, whose malnutrition, uncleanliness and superstition, all made them easy victims, instead of upon the modern knowledge that the disease, although more fatal, is really less contagious than small pox, and that well-nourished persons, who attend faithfully to the ordinary laws of personal hygiene, are rarely attacked by it. On the other hand, risk of contagion must not be estimated too lightly, as the soil may become infected and a nidus for the propagation of plague established. It should be made compulsory for all bodies of persons dying from plague to be cremated; that the clothing, bedding and furniture used by the patient should be burned immediately, and that the quarters occupied by the sick should be of a kind that they, too, can be destroyed by fire. If our daily papers, by publishing such information as this, would utilize the valuable space which they waste by their present methods, they would do much to prevent disease of every kind, and confer a lasting boon on humanity.

One of the most notable features of clinical medicine, during the last two years, is the number of patients who have come under observation suffering from various intestinal parasites, hitherto unknown in California.

The first patient to attract our attention was a Porto Rican, twenty-four years of age, who had left his home about nine months before admission to hospital. He said that about three years before his arrival in this State his sickness had commenced, with chills, fever and sweats, accompanied by diarrhea that became bloody in character, and gradually amounted to a continuous flux. After some months, he recovered from the acute condition, and remained in moderately good health until four months before his admission, when he was attacked with pain in his chest and arms, shortness of breath, and a return of diarrhea, although this rarely amounted to more than four passages in twenty-four hours. Increasing weakness and dyspnea compelled him to enter hospital.

His appearance and examination showed him to be profoundly anemic, and as the history suggested the possible presence of a parasite, a differential white blood-count was made upon the day following, with the object of obtaining the percentage of eosinophiles. Since these counts are of considerable interest, probably it will be advisable to postpone their discussion until the end of the clinical report, and let it suffice for the present to say that the eosinophiles only amounted to 6.5 per cent, an increase so slight that it could hardly be regarded as of any great clinical significance. The case was therefore regarded as one of an anemia, secondary to dysentery, and treated by the administration of iron in the form of Bland's pills. Subsequent blood-counts showed improvement in the number of red cells, but such marked increase in the number of eosinophiles that on October 11th the feces were examined, and ova of ankylostomum duodenale found. At further examinations, on October 13th and 14th, ova were found in abundance, in addition to a few parasites. By this time the patient had improved so much in general health that he was able to walk about the grounds without any discomfort, but whenever he discovered that his case was one of more than usual interest, he became so independent that it was with difficulty, indeed only in response to a dose of castor oil and the most earnest solicitations of my assistants, that he could be prevailed upon to furnish us

with a stool for examination. Ultimately, he had to be discharged before the treatment was completed. The following is a report of the blood examinations:

Date, 1901.	Hemoglobin. Per Cent.	Red Cells.	Color Index.	Leukocytes.	Polymorpho-Neutrophiles. Per Cent.	Small Lympho-cytes. Per Cent.	Large Lympho-cytes. Per Cent.	Eosinophiles. Per Cent.	Eosinophiles. Per Cmm.
Sept. 7	.....	2,000,000	.....	.....	78.7	10.2	3.5	6.5	.....
" 30	3.5	3,000,000	0.5	.....	70.0	15.0	1.0	15.0	.....
Oct. 7	.....	.....	.....	7200	64.0	11.5	2.5	21.5	1548
" 9	.....	3,880,000	.....	9000	51.3	14.6	6.0	28.0	2520
" 12	70	3,330,000	1.06	6400	65.0	12.3	3.1	19 8	1267
" 14	18	3,950,000	.....	7400	.....	.....	.....	.....	.....
" 15	75	3,285,000	.....	6400	73.5	4.2	2.1	19.5	448
" 16	.....	4,335,000	.....	8600	70.0	15.0	.0	18.5	.....
" 17	75	4,490,000	.....	5400	71.4	10.4	3 8	9.5	.....
" 18	.....	5,160,000	.....	8400	.....	.....	.....	.....	.....

A summary of this report is that the red corpuscles were markedly diminished, while the leukocytes were normal in number. There was an eosinophilia, which increased as the number of red cells improved under treatment. The polymorpho-nuclears were within the normal limits, except upon one count; the percentage of small and large lymphocytes was persistently and markedly diminished, the color index was not increased.

The next example of this disease was found in an American, who had served with the army in the Philippine Islands. During his service he was attacked by low fever, which at first did not unfit him for duty, but latterly he became so weak that he could not stand in the ranks. The weakness increased, and, although he could walk slowly on level ground, he had to crawl up and down stairs on his hands and knees. After being invalided home, he remained in the Presidio Hospital for three months, until discharged from the army, the day before he entered my ward. On admission, all that he complained of was weakness, pain in the calves of the legs, and loss of memory. The appetite was good, there was not any loss of weight, nor any gastric disturbances; the heart was slightly dilated, but otherwise normal; lungs, spleen, liver, bowels and nervous system normal; urine showed an excess of indican. An examination of the blood made upon the morning after admission, gave the following: Red cells, 5,880,000; leukocytes, 8,200; polymorpho-nuclears, 47 per cent; eosinophiles, 19 per cent; small lymphocytes, 28 per cent; large lymphocytes, 6 per cent. Next day the ankylostomum duodenale was found in the stools. The blood examination in this case differs from that in the first in the following particulars: The red cells were increased, rather than diminished; both forms of lymphocytes were present in their normal percentage, the polymorpho-nuclears were diminished.

The third patient was admitted complaining of pains that began in the ankles and extended to the knees, hips, and other joints, in characteristic rheumatic manner, and latterly he had pain in the region of the liver. The bowels were constipated. With the exception of a slight enlargement of the liver, all the organs were normal. The following is the report of the blood examination made four days after admission: Red cells, 5,090,000; white cells, 11,400; polymorpho-nuclears, 63 1-3 per cent; eosinophiles, 21 2-3 per cent; small lymphocytes, 9 per cent; large lymphocytes, 6 per cent. The ova of ankymostoma were found in the feces two days later, and on several subsequent occasions, but the embryos never were discovered. In this case the marked blood change was the increase of the eosinophiles, and the diminution of the lymphocytes. This last patient was very well nourished, and from his appearance the existence of any intestinal parasite, or, indeed, of any sickness, would not have been suspected.

It is a well recognized fact that the degree of cachexia in ankylostomiasis is not entirely proportional to the number of parasites present, because pronounced symptoms may exist, where comparatively few ankylostomes are found in the intestines, while, as in the case last mentioned, the parasites may be present in abundance, and the cachexia entirely absent. It has been suggested that good digestion and an abundance of food prevents this, by rapidly replacing the amount of blood that is lost in the intestines from the bites of the parasites; but, while we admit that good food, good digestion, and perfect assimilation will do much to combat the inroads of any disease, we must also ask the question, whether we are right in attributing the cachexia entirely to the mechanical loss of blood. May there not be some toxin excreted by the parasite, and may not the variations in the intensity of the symptoms be greatly due to variations in intensity of infection, as well as to differences in power of resistance on the part of the patient? As the parasite enters the human body in a larval form, gradually passes through various stages until it arrives at sexual maturity, impregnates the female, who sets free thousands of ova that must undergo changes outside of the body before they assume the larval form, it is perfectly natural to suppose that during these events some substances are set free, which may be detrimental to the host. An experiment made at the Cairo Medical School would seem to indicate the possibility of some such cause, although its object was to show that infection may take place through the stomach:

The larvæ of an analogous worm, trigonocephalum ankylostomum, were administered in milk to a healthy dog, aged four months. The animal had some retching at the time, but did not vomit, and for seventeen days he seemed fairly well. But on the eighteenth day he refused food, and died.

A post mortem examination showed great anemia, and the intestines were white, except about eight inches from the pylorus, where they began to be swollen and bluish red. Here, bathed in bloody mucus, were no less than 7,179 young, immature worms, with a very few scattered above and below this spot. The blood was due to capillary hemorrhage, which was not traceable to the very few bites that could be seen. All the ankylostoma embryos were the same size, of normal appearance, and without sexual organs.—(*British Medical Journal*, September 14, 1901.)

It would appear that this experiment not only demonstrated the object for which it was undertaken, but it also indicated that the symptoms of ankylostomiasis are at least partly due to a poison, and not simply to hemorrhage; because, if the few bites in the mucus membrane would not account for the small amount of blood in the intes-

tine, neither would they account for the anemia. Furthermore, the worms were immature; they were not at a stage to do their full amount of mechanical injury; and these facts, together with the sudden death of the dog, would all suggest the liberation or formation of a toxin during the passage from the larval stage. If the symptoms were the result of hemorrhage, then the blood examination should reveal the characteristics of secondary anemia. A glance at the blood in the cases just reported will show there is only one condition common in all three patients, namely, the eosinophilia; in one case only was there anemia. The red cells were diminished in one case, the leukocytes were practically normal in all three; the polymorpho-nuclears slightly diminished in one, and the lymphocytes diminished in two. This change in the varieties of white corpuscles is seen in varying degrees in nearly all cases of intestinal parasites, and is particularly noticeable in trichinosis. Six cases of trichinosis which have come under personal observation during the last three years, have shown the same tendency to eosinophilia, with varying alterations in the percentage of neutrophiles and lymphocytes, but in that disease the leukocytosis and eosinphilia are much greater than in ankylostomiasis. It has been suggested that the increased percentage of eosinophiles is caused by the neutrophiles absorbing the toxins and, as a result of this phagocytosis, becoming converted into eosinophiles; but such an explanation would not account for the more frequent diminution of the lymphocytes. In the absence of more complete knowledge of the life history of the various leukocytes, we are constrained to accept as most plausible the theory of Neusser, who suggests that the toxins stimulate the sympathetic system, and hence the bone marrow, so that eosinophiles result.

Another disease which we meet more frequently is dysentery. Formerly we had, at most, two or three examples of this affection during the year, but now we are rarely without a case, and often have four or five in the ward at one time. The number of soldiers suffering from this malady during the Spanish-American, Chinese and Boer wars, has done much to stimulate investigation, both in the etiology and treatment of a disease which may truly be regarded as the scourge of modern armies, and the results attained so far have been very encouraging. Shiga's discovery, in Japan, of the bacillus of infectious dysentery, was corroborated by Flexner, Strong, and other American investigators in the Philippine Islands, and in all parts of the world active research is being prosecuted in the hope of obtaining positive knowledge regarding the different forms of dysentery. Flexner has carefully studied the disease, as it is met with in various climates, and has expressed the opinion that there is one specific organism for infectious dysentery, just as there is for other infectious diseases. He closes a recent report of his investigations by saying:

> The results of this comparative study leave no doubt of the identity of the several bacilli with which I have worked. They indicate, moreover, that the acute dysenteries, tending to rise in the form of groups of cases, and in epidemics, whether in the Far East, Germany, or the West Indies, are due to the same organism.

Should these conclusions be correct, then we may hope for a serum treatment of dysentery, which may prove as effective against this disease as the anti-toxin in diphtheria. Indeed, Shiga has already made progress in this direction, but, although his early reports were encouraging, I am not aware of any recent statistics that show the results of the treatment up to the present time.

In his remarks upon amebic dysentery, Strong called attention to a possible source of error in laboratory reports. He recognized that more than one variety of amebæ existed in the human stools, but that only one of these was capable of producing dysentery; also, that the non-dysenteric variety was smaller than the other, and never contained red blood corpuscles in its interior. Up to the present time, therefore, it has been demonstrated that we have two distinct causes for the production of dysentery—the ameba dysenteries, and the bacillus dysenteries—also that these two organisms occasionally exist in the same patient.

In only two dysenterics who came under my notice did we obtain the Shiga reaction, but that is readily accounted for by the fact that none of the cases were of recent origin, all of the patients having suffered for several months, and some of them for more than a year. In treatment, we followed for a time in the wake of fashion, and used the various high enemata, containing nitrate of silver, or some other remedy of repute, such as bichloride of mercury, quinin, or permanganate of potash, with calomel and bismuth by the mouth; but the best results were obtained when we returned to the old custom of giving large doses of ipecacuanha. Formerly it was our custom to give thirty grains in the morning when the patient was fasting, but in this series of cases fifteen grains were found to be equally efficient. The relief that the patient experienced within a few hours after taking the drug was surprising, and in no case was it necessary to repeat it more than twice, although we advised that several doses should be taken at intervals of four days. It may be of some importance to notice that none of the cases so treated were of the amebic form. Had this been our first experience with the remedy, we might have been jubilant in the knowledge of a "sure cure" for dysentery, but some years

ago every case that came under our notice was treated to a much more rigorous course of ipecacuanha, with just as persistently bad results as they were good on the present occasion; indeed, so discouraging were they that we abandoned the method as not being adapted to the malady as it exists in California.

It was just such clinical experiences as this that suggested the probable existence of different varieties of dysentery, and bacteriologists have demonstrated the fact; but the work must not stop here. Since all forms of dysentery are not amenable to the same treatment, it remains for us to endeavor, in each case, to ascertain the variety with which we are dealing, and the appropriate remedy.

Our relations with the Philippines are going to bring us into contact with another tropical disease, a malady that, in its early stage, is apparently trivial and of slight importance, but which, if allowed to become established, either as a result of neglect or failure of recognition, most surely progresses slowly to a fatal termination. I refer to sprue or psilosis. So far I have met with only three cases in San Francisco, and its course, in one instance, was accentuated by an associated pregnancy; but as the disease is one to which all new visitors to tropical climates are prone, it is not unlikely that many of our returning countrymen will be found to be suffering from it. There is a great possibility of the real nature of the malady being overlooked, and regarded simply as a chronic diarrhea or dysentery, because it occurs not only primarily but also secondary to diarrhea, dysentery, and any form of intestinal disturbance. Indeed, French authors have been inclined to the view that it is a form of dysentery, a theory that is strongly combatted by the British school of tropical medicine. In this connection it may be interesting to note that in one of my cases of sprue the patient had formerly suffered from dysentery, and in her case a pronounced Shiga reaction was obtained, although careful and repeated examination of the feces always gave a negative result, so far as organisms peculiar to dysentery were concerned. The patients under my care had suffered for several months, so that when they came under observation, the disease was well developed. The tongue, mouth, and entire buccal cavity were painful from small ulcerations, which would heal, and then appear again from time to time, always rendering deglutition more or less difficult; the attacks of diarrhea were inter-current, but the stools were always pale, yeasty, and bad smelling; the anemia was very marked. Sufficient improvement took place to make us hope that the disease was being controlled, but relapse always occurred within a week, the mucus membranes were blanched, and the muscles so wasted that walking was attended with great effort.

In the case associated with pregnancy, the red cells fell as low as 948,000, while the leukocytosis was less than is usually found after parturition, and the percentage of the various leukocytes, as shown in a differential count, was normal. The highest hemoglobin estimation was 15 per cent, and the lowest was 10 per cent. The evidence of lost tone of the soft tissues were very prominent during labor. The pelvis was roomy, and the child only weighed five and a half pounds, but the perineum, with the exception of the skin, gradually tore before the advancing head as if it had been a piece of wet blotting paper It was repaired immediately, but there was not any attempt at union, and the patient gradually failed until she died, fourteen days after parturition. The other patients developed tuberculosis and died.

The cause of this disease is unknown, but so far as can be ascertained the pathology consists in a catarrhal affection of the alimentary tract commencing at the mouth, and gradually extending to the stomach and intestines; along with this, either as the effects of the catarrh, but probably due to the results of the primary cause, digestion and assimilation are early affected, and starvation ensues, terminating in irreparable destruction of the secreting and absorbing tissue in the alimentary canal, so that food not only fails to nourish, but even acts as an irritant, and still farther injures the mucus membrane. Such an epitome shows the necessity for early diagnosis and treatment, as the later stages are absolutely hopeless.

Residence in these islands has a very bad effect upon American women. One patient described the state of affairs very graphically, by saying: "A woman in Manila is either unwell all the time, or she is not unwell at all." The amenorrhea is generally very temporary, but the menorrhagia and metrorrhagia may persist for a considerable time after the patient has returned to this country. So far as I am aware, no satisfactory explanation has been given of the varying changes, all inquiries being met by the response that it is simply the result of climatic conditions, but what these conditions are, and how they exert their influence, constitute a problem which still awaits solution.

I have presumed to occupy your time with this brief sketch of these diseases because, to a great extent, they seem to be a legacy from the late Spanish-American war to California. Research into the etiology of tropical diseases is now attracting the attention of the whole medical world, and much benefit has already resulted from it. A more perfect knowledge of plague, cholera, and the malarial fevers must result in the improvement of those lands in which such diseases are endemic,

and the opening up of vast territories, which at present are practically closed to commerce. Our proximity to the Orient, our position on the highways of commerce, our temperate and equable climate, give us opportunities and facilities for the study of disease enjoyed by no other State. The time has gone by when California can live for California alone; other countries and other States are doing, at a disadvantage, the work which has been brought to our door, and they have a right to demand that we assume the responsibilities that have come to us with increasing years. The small showing that this State has made in such work is not due to lack of ability on the part of her sons, for many of them have made reputations in other States and other countries. It is rather to be attributed to want of encouragement and an absence of the stimulus which arises when many observers are laboring together in the same field. These conditions are being rectified rapidly, and anyone who has taken the trouble to familiarize himself with the class of work that is being done by a large number of the younger men, must feel convinced that research will not cease for want of competitors. I may be wrong, but it appears to me that the greatest obstacle to the progress of medicine in our State is the attitude assumed by the individual members of the profession. Collectively, we are all right, will pass any number of resolutions having for their object the advancement of education; will appoint numerous committees, and even be willing to serve upon them, provided the chairman will do all the work; but, individually, there is an apathetic condition, a tendency to criticize harshly the efforts of others, and an attempt to excuse our inactivity by attributing it to a lack of interest shown by the public in affairs pertaining to medicine. In this we are unjust; it is for us to show that there is work to be done, to demonstrate that we are actually in earnest, and doing the best we can with the means at our command , and then outside aid will come. "God helps those who help themselves," and the people are very much of the same disposition.

Medical Education—The profession of medicine need not feel shame at any inquiry into the character of its regular practitioners, but only the self-satisfied among us would assert that even a higher level may not be attained. Considering the matter from the view-point of the profession, nothing could be more wholesome than a high standard of requirement for admission to membership in a body that has always been regarded by the public as one of general culture and intelligence. The country has grown rapidly and the medical curriculum has become exacting. Not unnaturally, therefore, some men have entered the profession without sufficient preliminary training. It is but natural to suppose that the exactions of the medical schools and the State boards of examiners will increase rather than decrease.—*Pennsylvania Medical Journal.*

HOW FAR SHALL THE STATE RESTRICT INDIVIDUAL ACTION OF THE SICK, ESPECIALLY THE TUBERCULOUS?*

By NORMAN BRIDGE, M. D., Los Angeles.

AS to violently contagious and rapidly terminating diseases, like smallpox, scarlet fever, diphtheria and plague, the State has long exercised more or less control over the actions of the patients, and with the general acquiescence of the people.

Shall the State—and especially the State of California—undertake a similar restriction as to tuberculosis, which is a communicable, or, as some like to put it, a contagious disease, although usually slow in its progress and long continuing?

California may fairly consider this question in a different way from that proper for most States, for several hundred of tuberculous patients enter her borders each year—some to die, most to recover. These patients more or less menace the lives of the resident population of the State, and the latter may very properly ask that something be done to lessen the danger. The way to lessen the danger is to reduce the number of tubercle bacilli abroad, that come from human sputum.

I suppose there can be no question of the power of the State, under the Constitution, to regulate these matters, and to keep out people afflicted with contagious diseases (and perhaps even undesirable people), by means of any fair laws the Legislature may enact and the State be able to execute.

But laws must, in order to be executed, comport with the general sense of humanity and fairness held by the people, and they must not entail enormous difficulty and expense in the execution, unless in the face of some great and temporary public calamity.

While tuberculosis is a great public calamity in the spread of it from person to person, it is a calamity that is so slow in its progress and results, that the people become used to it, as the Cubans formerly were to yellow fever, and it is hard to arouse them to its dangers. It is fortunate that now public sentiment is becoming awake to the importance of this subject.

Two ways are open to protect the uninfected people of the State from Tuberculosis—the one, to prevent the coming of such patients hither; the other, to regulate the patients already here.

As to a large number of consumptives annually coming here, it would be far better for them, as well as for the State, if they never came; and they ought to be prevented from coming, if this were consistently possible. These patients are the hopeless cases, mostly of poor people, who are often unable to give themselves the comforts of life after they get here, and who, almost without an exception, are careless

*Read at the Thirty-third Annual Meeting of the State Society Santa Barbara, April 21-23, 1903.

about their sputum, which is the sole source of infection. Their hope and prospects are not enhanced by their coming, and there is only a single good purpose subserved by it, namely, the emotional one on the part of their friends and themselves that they have tried one final influence to save their lives. And the journey and sojourn have often entailed on their surviving relatives great hardships of debt, and deprivation for years after their death.

How can these unfortunate invalids be kept out of the State—perhaps kept at home, where they certainly ought to stay?

The moment we begin seriously to consider this question in a practical way, we are confronted with several difficulties of large proportion.

If it is resolved to keep such cases out, it is at once manifest that it cannot be accomplished by forbidding them to come. The only effective way would be to take steps to forcibly keep them out, if they attempt to come in. This would mean to attempt to guard nearly, or quite, three thousand miles of border, and especially to watch the four lines of railroad entering the State, and the dozen or more harbors on the coast. A medical inspector, of skill above the average, and capable of making critical examinations of the chest with a stethoscope, and of the sputum with the microscope, would have to be on duty at each of these points. At the railroad entrances and the active harbors, two or three such officers would be required, also several deputy sheriffs or marshals, to execute the adverse orders of the medical officers. All passenger trains would have to be delayed several hours till all the passengers could be examined. The general appearance of the travelers could not be relied upon to tell who are dangerous consumptives, for some mortally sick ones look in the face very well, and nine-tenths of all tuberculous patients could easily hoodwink any inspector who should be less critical than I have indicated.

Any law on the subject would probably be general, but suppose it should require that bad cases only be kept out, then broad discretionary powers would be lodged in the hands of medical officers. This would make the exclusion either thorough or farcical, according to the habits and inclinations of the officers. But all these officers and their necessary outfit would be needed at each point, if the exclusion were to be made effective, and the outfit might have to include a hospital ward, and would certainly include a large and manifold examining room. For, to make exclusion certain, every person would need to be stripped to the waist in a warm room, away from noise, and be examined critically; and some doubtful cases might require to be kept at the examining station several hours, to allow of the accumulation and microscopic examination of sputum.

Since many of the trains enter the State at night, the passengers would have to be awakened and taken out into large rooms, and guarded against any of them slipping through without inspection, as is done in many custom houses in Europe and America.

If anyone thinks that this picture is fanciful, and the proposition too sweeping, let him draw the line and say how the end could be accomplished with less thoroughness, or in a simpler way.

The attempt to exclude would at once be met by the demand that patients and persons be admitted to the State, on presenting a clean bill of health from competent physicians outside. That might do; but what physicians outside the State? Would it be the home physicians of all these people, coming from many thousands of communities, in this country and abroad? If so, then the inspection would be easy, for a tuberculous person, who might wish to come, would naturally try to get some doctor to consent to certify that he had only a simple and harmless bronchitis—that would let him through, and the doctor living miles away might find his conscience accommodating. But all the physicians in the nation might not be trustworthy for this service, and certain ones might need to be designated ;then the State would have a considerable task on its hands in this duty.

To carry out such a rigid inspection would probably cost the State from thirty to sixty thousand dollars a year, and might cost a hundred thousand.

If the exclusion was thorough, the consumptives would very soon cease to attempt, in any considerable numbers, to enter the State—then it would soon be claimed that a useless expense had been saddled upon the commonwealth, as the paid inspectors and other exclusion officers would have little to do, and there would be a clamor for the repeal of the law and the stopping of the expense, both of which would probably be done at a subsequent session of the Legislature. Then the consumptives would swarm hither again.

But any consumptive, able to travel a little, who might really desire to enter the State, could easily enough do so by coming in across the border away from the lines of travel. To keep such persons out, or to seriously attempt to, would require an espionage upon all newcomers in each community throughout the State, and the expulsion or imprisonment of persons found here unlawfully. This, too, would require the services of medical inspection officers in every part of the State—and these services would have to be paid for out of the public treasury; physicians would not do it for nothing, nor always

do it willingly. They would have to be compelled to do it, and might be careless in their examinations, or if they found a genial or wealthy consumptive here, who had recently arrived, and who desired very much to stay, they might, in some mysterious way, discover reason to guess that he contracted the disease after his arrival.

Another very practical difficulty would be the intense unpopularity such a measure would encounter from a large part of our own people, and from nearly all the world outside. The damage to the State financially, socially and morally, would be many fold more than any benefit that could possibly come out of such an effort. The State and its people would be lampooned and caricatured from all quarters of the earth, and the people would soon see the academic absurdity, the utopian impossibility of the scheme. What the temper of the people would be found to be on this question may be inferred, when we consider the fact that over half of all the people are afflicted with tuberculosis in some part of their bodies, to some degree, at some time in their lives. The disease is extremely respectable, if majorities can make respectability.

A great deal of benefit may come of regulating consumptives within the State. Here is a possibility of doing incalculable good to both the sick and the well, and some systematic work of this sort ought to be undertaken at once by the State, the counties, and by municipalities.

Here are a few of the things that are proper and possible, and very urgently needed:

1. The government ought to transport indigent, immigrant consumptives back to their homes the moment they become a public burden, when this can be done without harm to them. This would tend to discourage such cases from coming.

2. The State ought to take care of its own indigent consumptives, and prevent them from infecting the community. This means public sanatoria for them. Such patients are to-day a constant menace to the people—for they are, most of them, utterly careless as to their sputum. In sanatoria they are always careful. The sanatoria would be expensive—but these patients to-day cost the State probably twice as much as they would cost in such institutions.

The argument that State sanatoria would invite vast numbers of the sick from other quarters, and so overburden us, is illogical and groundless. The other States of the Union are rapidly building such asylums, and in a few years California will have to do it to save her self-respect.

3. The government ought to make carelessness with tuberculous sputum a misdemeanor, punishable by fine of both the patient and his care-takers, and health departments ought to furnish printed rules for the care and destruction of the expectoration; also for disinfecting probably bespattered clothing.

4. Health officers ought to be required by law to instruct and caution known consumptives as to their duties and dangers, and their menace to others, and to punish them for neglect. These officers should invite physicians and laymen to furnish the names of tuberculous persons, especially those supposed to be careless. In some cities physicians are required, by law, to report all tuberculous patients to the health officers, the same as they do those of other contagious diseases. But I do not believe they generally do this; to make it compulsory is to array many against it, and lead to its frequent evasion. Yet the time will probably come when the majority of cases can be reported through such a regulation. Indeed, some of the advocates of this measure think that in New York City a large majority of the cases are now being reported. But the unreported cases have not been counted.

5. Health officers should be required, whenever asked to do so, and at public expense, to disinfect any room or house that has been occupied by a consumptive. On a death from tuberculosis being reported to them, they should promptly inform themselves whether carelessness as to the sputum has obtained in the care of the patient. If it has—or unless they have positive proof that it has not—they should insist on disinfecting the apartments.

6. It should be made a misdemeanor for any person, sick or well, to spit upon any walk, pavement or floor, indoors or out of doors, on which human beings habitually tread.

7. In all colleges, high schools, and the upper grades of all grammar schools, there ought to be introduced into the regular curiculum a course on the demonstrated facts as to the communicability of tuberculosis, as well as of other infectious diseases, and the means to prevent the spread of them. Such a course would be of immense value in circumscribing tuberculosis, but it would also be of great benefit as to typhoid and other fevers. Measures of this sort are educative of the public, and the great desideratum is to have all the people come to know the vast importance of having it made impossible for tubercle bacilli to become a part of the dust of the air from human sputum.

The people resent what they regard as official invasion of their legal rights of habitation, and free movement from place to place. Their sicknesses, they think, are a sufficient misfortune, without being, as they define it, punished by law in addition; and it will be necessary to educate them slowly, but that they can be educated on this question is as sure as fate. The people are sometimes very slow to learn new facts as to their protection of themselves, and they transmit from mouth to mouth, and from generation to

generation, the most transparent absurdities, as for example, the idea that night air is harmful to the sick; but when the truth is made plain to them, they are found ready to adopt it, and they will transmit that as faithfully as they did the falsehoods. But the medical profession has been extremely lethargic in this matter, and needs, itself, to be aroused to its duties and opportunities.

INTRAABDOMINAL SHORTENING OF THE ROUND LIGAMENTS FOR RETRODISPLACED UTERI.*

By J. HENRY BARBAT, Ph. G., M. D., San Francisco.

Instructor in Abdominal Surgery, Medical Department, University of California.

RETRODISPLACEMENTS of the uterus have from the beginning of gynecic practice been a *bete noir* to the gynecologist. All manner of mechanical appliances have been invented to replace and retain the retroverted or retroflexed uterus. Numerous operations have been devised for the same purpose, and yet up to recently, few men have felt that any of the various methods were satisfactory, except in a small number of cases, in which some one of the various methods is applicable, or even indicated; but none of the older methods could restore the uterus to its normal position and at the same time retain its normal physiological condition.

Pessaries undoubtedly still have their place in the gynecologist's armamentarium, and should be used in cases in which the normal-sized uterus is retroverted, but easily replaced manually, and the patient unable to take treatment or be operated on, and unmarried. If the patient can take treatment for a sufficient length of time, some of these cases may be cured by massage, electricity and tampons. It usually requires from four to six months before any case can be considered cured by this method, and the patient is obliged to come to the office every day at first, and the treatment continued for at least six weeks after the pelvic organs are in apparently perfect condition.

The first operative procedure for the relief of retrodisplacements was ventro-fixation, which was done by Koeberle in 1869, and subsequently by Sims, in 1875. This operation has been modified in numerous minor ways, by varying the position of the sutures in the uterus and abdominal wall, and by using all manner of suture material. The operation, no matter how performed, is unphysiologic, and should only be made use of in cases of prolapsed uteri, in which cases, after having narrowed the vagina, it affords the best and surest means of retaining the prolapsed uterus.

The next operation which was suggested, was the shortening of the round ligaments by drawing them through the external abdominal rings. It was first executed on the living subject by Alexander, in 1881. This was also modified in every conceivable manner.

The operation is a good one in many cases, but has never appealed to me as a good surgical procedure, as the operator is obliged to work in the dark, and in case adhesions exist, it would probably result in failure. Duhrssen's method of vaginal fixation is only applicable in a few cases, and has been followed by fatal results in several cases in which pregnancy had occurred subsequent to operation.

In the majority of cases of retrodisplacement which require operation, it is also necessary, or at least advantageous, to examine the pelvic contents, with a view of determining the existence of adhesions, and rectifying any pathological condition of the adnexa. Wylie, Baer and Dudley each devised a method by intraabdominal folding of the round ligaments; the folds being held in position by several sutures. A large proportion of failures resulted, and the operation fell into disrepute. Webster drew the round ligaments through a hole in the broad ligament and sutured them on the back of the uterus.

The latest method is one devised by Baldy, and is a modification of Webster's; it consists in cutting off the round ligaments at their junction with the uterus, and drawing them through holes in the broad ligaments and suturing them on the posterior surface of the uterus. I have performed the operation in a number of cases, and so far, have been well pleased with the results, all of which have been successful, which is more than can be said of any of the other operations.

The technic which I have employed has varied slightly, according to the pathologic lesions present. The following cases will give an idea of the method:

Mrs. H., aged twenty-four years, had been having pain in the back and lower abdomen ever since the birth of her child, two years before. At the time I saw her she was just recovering from an acute exacerbation and had considerable tenderness over the right ovary and appendix, with the uterus retroflexed and adherent. On opening the abdomen the uterus was found bound down on the right side by an inflammatory mass, consisting of the tube and ovary, with the inflamed appendix firmly adherent. This was first separated and removed, and then the mass, consisting of tube and ovary, eneucleated. During the eneucleation, several cavities were encountered, which contained sterile pus; they were mopped out with formalin solution 1-1000. The uterus, after being liberated, still remained retroflexed, and I decided to shorten the round ligaments. A catgut ligature was first tied around the ligaments, close up to the uterus, and they were cut off on the distal side of the ligature. On the left side the cut end of the round ligament was drawn through the broad ligament, just below the tube, by means of a narrow Kocher forceps. On the right side, the tube and ovary having been removed, there was not enough broad ligament left to pass the ligament through, so it was passed around to the back of the uterus.

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

The round ligaments were so long, that when the uterus was in position, they met behind it, and were held in position with fine catgut sutures. Before placing the sutures, I made a cut through the peritoneum from one side of the uterus to the other, just under the place the round ligaments lay. This brought the raw surface of the ligament in contact with the muscular surface of the uterus. The sutures were placed beginning at the lower border of the ligament, just below the uterine cornua, the suture including a small part of the wall of the uterus and half the thickness of the ligament. Sutures were placed one-third of an inch apart, and on the upper border were placed so as to alternate with the lower ones, so as not to cause necrosis of the ligament. One suture held the ends of the ligaments together. When completed, the ligaments appeared imbedded in the uterine wall, and held the uterus in perfect position. At this writing, eight months since the operation, the uterus is slightly anteverted and freely movable; no pain or tenderness.

The next case was about the same, except that the right ovary was not involved, but the tube was, the operation being in other respects the same. Result after seven months, perfect.

Mrs. K.—Uterus had been bound down by inflammatory exudate, following a septic abortion, and the patient had been bedridden for two months. Uterus retroflexed and immovable. At the operation, the adhesions which involved the posterior wall of the uterus, near the fundus, were separated and the uterus raised. In this case no incision was necessary in the posterior wall of the uterus, because the loosening of the adhesions left sufficient raw surface for the adhesion of the ligaments, which were spread out as much as possible.

This patient experienced immediate relief, and was able to attend to her house work at the end of four weeks.

Miss B.—Nurse, severe headache, tender coccyx and appendix. Uterus retroverted, but not adherent. Appendix removed first, and then typical operation on round ligaments, except that they were not long enough to meet on the posterior wall of the uterus; I therefore did not continue the incision across, but only the length of the ligaments. Patient was back nursing five weeks from date of operation, free from backache.

My fifth case was similar to the last, except that the right kidney, which was movable, was sutured at the same time.

Mrs. I. had a pelvic peritonitis four years ago, following a badly treated miscarriage, which left a large mass in the left broad ligament. This was reduced by means of massage, electricity and tampons, and patient was apparently well. Three years after she came to me for pain in the back and left inguinal region, which had been getting worse for three months. I found the uterus retroflexed, and the left ovary enlarged and tender. I advised operation, but patient demurred and preferred to try treatments. She came to my office faithfully for four months, and I succeeded in loosening the uterus a little, but was never able to replace it properly. One day, after treatment, she had a severe exacerbation of pain in the left side, and her temperature went up to 104° F. This decided her in favor of operation, which was done one week after. The uterus was held in retroflexion by bands of adhesion running from the left side of the posterior wall to the cul de sack; and the left ovary, which was about two and one-half inches in diameter, and cystic, was firmly adherent to the posterior surface of the broad ligament. Nothing in the pathology offered a satisfactory explanation for the rise of temperature. The ovary was lifted out and resected, and the bands of adhesions cut close to the uterus. The round ligaments were then transplanted, and held the uterus in perfect position. An examination made three months after, showed the pelvic organs in apparently perfectly normal condition.

The remaining cases are too recent to determine the result. The only objection which can be urged against the operation is that the weakest end of the round ligament is utilized to sustain the weight of the uterus, but this objection is more theoretical than real, because the uterus is not supposed to be dragging on the round ligaments when it is in normal position, and it is only when it has reached the first degree of retroversion that the round ligaments are being dragged on.

As long as the uterus maintains its normal position of anteversion, the pressure of the abdominal contents prevents any pulling on the round ligaments, but if the axis of the uterus, instead of pointing anterior to the perpendicular, points posteriorly, then the weight of the abdominal contents tends to force it backwards, and in conjunction with its own weight, pulls on the round ligaments and stretches them.

Any operation which will hold the uterus in anteversion for a sufficient time to allow the round ligaments to regain their tone, will cure the retrodisplacement, if the original cause of the trouble be remedied. Theoretically, Alexander's operation appears to restore the parts in the most physiologic manner, but practically, its limitations are so great, that it is only useful in a few selected cases, while Baldy's method may be applied to practically all cases, and permits the operator to remedy any pathologic condition which may be present in the pelvis at the time of operation. The results are all that could be desired.

Race Degeneracy and Dental Irregularities—Dr. E. S. Talbot in *Alienist and Neurologist:* "Irregularities of the jaws and teeth increase proportionately westward from Greece to the British Isles, the rate in the British Isles being greatest. Greece, however, no longer contains the race which so long dominated the world intellectually. The people are a mixed Slavo-Mongoloid race who speak Greek. Furthermore, as the correctional, charitable and hospital arrangements are primitive, the defective classes are not accumulated. Under such conditions a seeming decrease in stigmata of degeneracy must result. This, however, would extend more to deeper stigmata than to those of the jaws and teeth. Degenerate jaws and teeth are commonest, next to the English speaking people, among the Scandinavian speaking. As both have passed through very similar phases of race evolution, and both contain at bottom the same race elements, this was to have been expected. The struggle for existence between the organs, dependent on race evolution and race admixture, has resulted in the higher races in the triumph of the brain and skull at the expense of the face; hence, the higher the intellectuality the greater the tendency to local degeneracy of the face, jaws and teeth."

PUERPERAL ECLAMPSIA.*

By H. M. POND, M. D., Alameda.

PUERPERAL Eclampsia is the term applied to convulsions, tonic or clonic in character, the foundation of which is laid in processes connected with pregnancy, labor and childbed. As indicated by the definition, the period of time during which these convulsions may occur, extends over the latter months of pregnancy, during labor, and for a brief period following confinement.

Thus Dewar reports a case in a woman aged twenty-eight, in whom convulsions occurred without warning, at the sixth month of pregnancy. Ten convulsions occurred. There was no albumen in the urine. Four days later she had seven more convulsions, and albumen was found in the urine. Three convulsions followed four months later. Edema and varicose veins existed in both legs. Three months later the baby was born, at term, in excellent condition. At this time albumen was absent from the urine. As there was no cause or suspicion of epilepsy, he believes the case to have been true puerperal eclampsia.

Many cases are reported during the eighth month. The majority of the cases occur during labor at term. One case under my observation began on the eighth day after a comparatively uneventful labor and lying in.

The etiology is obscure. There can be no question as to some relationship between the nearly constant albumenurea and the convulsive attacks. Yet, many pregnant women with albumenurea do not have convulsions, and equivalent amounts of albumen in urine in other pathological states do not produce the same convulsions. Sixty per cent of the cases are primiparæ. Twin pregnancies afford more than their proportion of eclamptic cases.

Schumacher of Strassburg, has injected urine into the circulation of animals and endeavored to ascertain its toxicity. Neither urine nor amniotic fluid is more toxic in case of eclampsia than in normal cases. The blood serum has likewise the same effect in eclampsia and in normal cases; the serum of the fetus is no more toxic than that of the mother.

Krönig and Füth of Leipsic, conclude from their experiments, that a change in the blood of eclamptic patients is not to be determined either by determination of the viscosity or of the specific weight. Wyder of Zurich, considers the disease an intoxication, not an infection, which does not continue after the birth of the child. In those cases where the attack occurs but once, and where it occurs days after the confinement, it is hard to recognize the fetal influence. Interesting in this connection is the fact that it has been determined by Blumreich and Zuntz, that the brain of pregnant animals reacts to smaller quantities of toxin which produces convulsions, than does the brain of non-pregnant animals. But finally, the *Journal of the American Medical Association* sums up the little we know regarding the etiology, by saying: "Taking it all in all, we must admit that eclampsia is a toxic disease, in which coagulative substances exist in the blood, but the source of these substances has not been determined."

No decisive proof is at hand to the effect that the intoxication is of fetal origin.

The pathology is nearly as clear as the etiology. On the one hand we have a paper by Fehling of Strassburg, in which he endeavors to support the following propositions:

1. There is no such thing as characteristic eclampsia placenta; 2, there is no form of kidney disease pathognomonic of eclampsia; 3, a connection between eclampsia and dilatation of the ureters is to be denied; 4, albumenurea is lacking only in the rarest cases of eclampsia; 5, there is no such thing as specific eclampsia liver; 6, a definite, characteristic, anatomic picture of eclampsia does not exist, according to the autopsy findings known at present; 7, the view that eclampsia is infectious is, at present, entirely without proof; 8, Bouchard's view that toxicity of the blood plasma, continued with a decreased toxicity, or an entire absence of toxicity of the urine, cannot be held; 9, the explanation of eclampsia as a lepatoxemia, or as a leukomainemia, is not proven; 10, some substance which causes coagulation, and which, carried in the circulation, seems to be of significance in the origin of the eclampsic changes in the body; 11, eclampsia is an intoxication of fetal origin.

On the other hand, Schmorl of Dresden, reports on the pathologic findings in seventy-three cases of eclampsia. In every case but one, he found the same changes in the secretory epithelium of the kidneys, parenchymatous, and fatty degeneration; in three cases hemoglobin infarcts; in seventy-one cases hemorrhagic and anemic necrosis of the liver, changes which begin at the periphery of the acini; in the other two cases he found a total thrombosis of the portal vein.

The changes in the liver have no relation to the severity of the convulsions. In ten cases icterus was present; in three he found similarity to acute yellow atrophy of the liver.

He thinks that bile salts are still more often present in the circulation, but that the time is too short to permit the coloring of the skin.. In sixty-six cases he found thrombi and hemorrhages in the lungs. In fifty-eight of sixty-five cases, he found capillary hemorrhages in the brain, often localized in the nucleus caudatus. In forty-two cases, hemorrhages in the heart muscles, with necrosis and parenchymatous and fatty degeneration.

The result of these studies is that eclampsia is characterized by definite pathologic findings, consisting of the degenerative changes in the secretory epithelium of the kidneys, hemorrhages

* Read at the Thirty-second Annual Meeting of the State Society, San Francisco, April 14-17, 1902.

and thrombosis of the liver, thrombosis, hemorrhages and softening of the brain, and the changes in the heart muscles.

Schmorl believes this picture more constant than the findings in cases of sepsis, poisoning, etc., where the pathologic picture may vary greatly, and yet, pathology considers the picture pathognomonic. In no other disease does the same complex occur.

Schmorl believes, therefore, that eclampsia is an identical disease in all cases, not a complex of symptoms. When the toxin is produced is not known. And, finally, Herzfeld reports eighty-three deaths out of four hundred and sixty-three cases of eclampsia, in ten years, in the hospital of Vienna. Of these eighty-one fatal cases, subsequent microscopic examination showed thirty-two instances of hemorrhagic hepatitis, and twenty-eight of parenchymatous degeneration of the liver. As to the condition of the kidneys, there were thirty-eight cases of Bright's disease, and twenty-eight of acute nephritis. Herzfeld adds to these, as another potent factor in producing eclampsia, compression of the ureters, which condition was frequently present, especially in primipara. He emphasizes the conclusion that when eclampsia occurs in primipara, during the early stages of pregnancy, ureters compression was found with great frequency, and considered as the chief cause, since there was absence of any marked change in liver or kidneys.

The prognosis is gradually becoming better; whereas the statistics of the German clinics ten years ago show an average mortality of twenty per cent, the figures for the past ten years show a fatality varying from ten to fifteen per cent.

The treatment—In this disease, especially, it is possible for us to do very much in the way of prophylactic treatment, for, as a rule, we are engaged for our patients prior to the time when the disease is liable to appear, and occasional examinations of the urine of pregnant women have now become the routine practice of all obstetricians.

In cases with albumen in the urine the prompt institution of strict milk diet, of attention to the bowels and skin, will tide most patients along to, and through confinement without convulsions; if, however, the prodromal symptoms of eclampsia appear, vomiting, pains in the stomach and head, and increasing quantities of albumen in the urine, many authorities recommend the prompt induction of premature labor. In a case where convulsions have begun, a rational treatment may be based on the following principles: (1) The woman must be confined by the most rapid method possible, without any too great consideration for the life of the child. (2) All obstetric manipulations should be performed in narcosis, on account of the heightened reflex irritability. (3) Painful attention to antiseptic and aseptic precautions. (4) The most careful study of the individual when using those drugs known as heart poisons—chloroform, chloral hydrate, morphin, veratrum viride. (5) Careful stimulation of the secretory activity of the kidneys, the skin and the bowels, to further the excretions of the toxins. (6) A removal of at least a part of the poisonous substances coursing in the circulation, or a dilution of the same, by bleeding in suitable cases, and subcutaneous, intravenous, or rectal salts infusions. (7) Increased oxidation of the blood by means of oxygen inhalations. (8) In cases of threatened heart collapse, excitants, such as camphor, ether, caffein. Five cases have recently come under my observation—four primiparæ, one with a fourth confinement. In one case convulsions occurred before labor; in a second, at the conclusion of the first stage; in a third and fourth, within twenty-four hours after delivery, and in a fifth (the multipara) on the eighth day after confinement. In case I, consciousness never returned after the first convulsion. Consultation was promptly had. Morphin injected, chloroform given, careful manual dilatation of cervix, forceps delivery without much evidence of shock, repair of perineum, chloral and bromide rectal injections, but nothing availed; the patient died about twenty-four hours after her first convulsion. No veratum was given in this case, the consultation ruled against it.

In case II, which had been slowly progressing for about ten hours, I happened to be in the room when convulsions began. Morphin hypodermic; chloroform at once; aid quickly called; forceps delivery, the cervix being already dilated. Veratum veride, freely and frequently, till its influence was distinctly noted in a slower and softer pulse, and kept up for two days; chloral and bromide by rectum. No convulsions occurred after she waked from the chloroform and her recovery was uneventful.

In cases III and IV the treatment was identical, except, that delivery having been already completed, no instrumental procedure was necessary, and no chloroform was given. Veratum was given in each case, with immediate and pronounced benefit.

Case V had been in convulsions, alternating with coma, for twelve hours when I saw her. Her attending physician had gone home, after announcing that she would die in a few minutes, and promising to send the undertaker around in the morning.

When she failed to comply with his prognosis in a couple of hours, I was called into the case. Hypodermic veratum; rectal injections, chloral and bromide; later, hypodermic morphin, and she began to swallow a little veratum by the mouth; mustard to spine and cold on head. The

interest in the case was pleasantly varied by the husband, who had spent two terms in the asylum, going mad again, and having to be subdued and gotten out of the way during the most anxious period of the treatment. After two days, convulsions ceased, stomach, bowels, kidneys, skin, heart and lungs took up their respective functions in good shape, but her mind was gone. She was sent to Stockton, and after about six months of treatment, was restored to her family, sound in body and mind, and showing but little trace of the frightful ordeal she had been through.

In all these cases a combined treatment was used, and it is impossible to estimate the exact proportion of benefit which should be ascribed to each element of the treatment. But it is my opinion, and was likewise forcibly borne in upon my professional brethren, who watched these cases with me, that from the action of veratum we received more benefit than from all the other measures combined. I regard it as very nearly a specific, if given promptly, freely and frequently. I have seen no symptom that caused me any uneasiness, arising from its use, but in each case in which I used it, and after almost every time I administered it, I could notice positive and beneficial results.

THE CALIFORNIA STATE JOURNAL OF MEDICINE will be issued hereafter on the first of the month. Communications and advertisements must be in by the 15th to insure publication the following month.

Boycotting Doctors.—The strikers in Waterbury, Conn., have been having "high jinks" in their own way, but nothing that they have done deserves so much to bring down public wrath on their heads as their recent attempt to boycott the doctors. According to the *Herald*, these labor agitators have just issued an "unfair" list (which means a kind of blacklist) in which are included the names of some prominent physicians of the town. These practitioners are boycotted because they used the trolley cars to answer hurry calls, and because *they dressed the wounds of injured conductors and motormen.* We trust this report will be widely read in the United States. The spirit displayed by these strikers is strongly suggestive of that of the French Revolution when it was at its worst. Civilization would not be worth a farthing if such men are to dictate terms. When the day comes when a physician has to ask permission of a mob to give his aid to the sick and injured, and to suffer a boycott if he ignores its unholy mandates, it will be time for civilization to go out of business. We honor these physicians and should like to have their names.—*Philadelphia Medical Journal.*

Treatment of Asthma.—Dr. C. H. Baker in the *Journal of the Michigan State Medical Society:* "Did you ever hear the expression, 'gunning for sparrows with a cannon?' I was reminded of this expression recently in looking over a widely distributed publication, an index of remedies compiled from standard works in medicine, and seeing how extensive was the list of remedies recommended in asthma. Only seven other ailments, tuberculosis among them, had an equal number, and the list was not as complete as it might have been made. There were no less than sixty remedies in this confession of ignorance, as it ought to have been called, and their actions were the most varied and opposite in character. You had your choice between nerve sedatives and nerve stimulants—sedatives to respiration and circulation and stimulants ditto; alkalis and acids, astringents and counterirritants, emetics and anesthetics; remedies suited to gout, syphilis and ague, digestive and antiseptics, electricity and hynotism; or, all these failing, there were still steam, smoke, mud, climate, clothes, surphur and spectacles." Dr. Baker in summing up claims that asthma "is a reflex disorder primarily due to nasal pressure, intermittent or constant, occurring in a patient of the neurotic temperament. Asthma can be cured in many and relieved in most cases by such measures as will remove this pressure."

Etiology of Cancer—Dr. Alexander R. Becker of Seattle, writing in *American Medicine*, says, with reference to Dr. Homer Wakefield's paper on "Pathology of Katabolism," that he brings a "wealth of hypothesis to bewilder the unprepared mind, but so controlled by the most advanced biochemic knowledge and clinical experience and demonstration, and keen logic, as to demand the very best and closest study of the best pathologists everywhere. An autohyperacidity—*i. e.*, subalkalinity—local or general, causing a suboxidation, which leads to subkatabolism and then stasis in the tissues, while anabolism goes on. There is nothing dramatic about that; no bacterium to hold up to opprobrium, or from which to manufacture an antitoxin and fame and wealth and decorations. But he declares the malignancy of a neoplasm to be practically a matter of degree; of a superlative or prolonged local hyperacidity, which produces a coexistence of adolescent and mature and degenerating cells, of living and necrotic matter, within a circumscribed area—a confused mass, both histologically and chemically, with contradictory efforts at life and products of death, and therefore fully capable of its clinical results. By age and habit I am averse to hasty judgment, and yet I freely admit that this hypothesis and argument has aroused my real enthusiasm. Still, it is only as one of the old guard that I venture to express myself while awaiting the dicta of the masters of pathology."

Operation for Bunion.—A longitudinal incision, not more than half or three-quarters of an inch in length, along the line of the inner surface of the extensor tendons, exposes the site of the hyperostosis, and a sharp chisel separates the button of the bone readily from the head of the metatarsal bone. The open bursa can then be trimmed out with a pair of scissors without difficulty, and when the wound is sutured and the skin pressed against the surface of bone from which the bunion was removed, it becomes quickly adherent and the bunion is at an end.—*International Journal of Surgery.*

Preventive Medicine. *Science:* "We know of no branch of science which has contributed so much during the past twenty-five years to the sum total of human happiness than sanitary science, and perhaps no field affords better prospects for fruitful results than the endowment of a school of preventive medicine."

TREASURER'S REPORT TO THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

RECEIPTS.

1902			
April	15—By balance on hand	$2387.47	
May	1—By voucher paid by the Secretary	19.35	
May	1—By check from the Secretary	1471.60	
June	3—By voucher paid by the Secretary	8.50	
June	3—By check from the Secretary	161.50	
November	3—By check from the Secretary	326.35	
November	3—By voucher paid by the Secretary	8.65	
1903			
January	19—By check from the Secretary	120.00	
March	2—By check from the Secretary	26.90	
March	2—By voucher paid by the Secretary	19.10	
April	1—By check from the Secretary	747.00	
			$5296.42
	Dividend San Francisco Savings Union		31.53
			$5327 95
1902			
June	30—By dividend San Francisco Savings Union	$ 2.93	
December	31—By dividend San Francisco Savings Union	28.60	
			$ 31.53
	San Francisco Savings Union	$2853.35	
	Crocker-Woolworth National Bank	905.52	
			3758.87
	Total cash on hand	$3790.40	$3790.40

DISBURSEMENTS.

1902				
April	25—L. A. Kengla, work on Transactions	Voucher 167	$100.00	
April	25—C. G. Kenyon, expenses Committee on Revision	Voucher 168	73.00	
April	26—W. B. Kallmeyer, legal expenses	Voucher 169	152.50	
May	1—Geo. H. Evans, stationery and office suppli s	Voucher 170	19.35	
May	8—H. S. Crocker & Co., seal and press	Voucher 172	4.00	
May	10—Golden Gate Building Association, hall rent	Voucher 173	80 00	
May	10—E. B. Nicholson, addressing programmes	Voucher 174	17.00	
May	10—Hicks-Judd Company, printing Committee on Arrangements	Voucher 175	54.50	
May	10—J. A. Johnson, printing cloth sign	Voucher 176	1.50	
May	10—C. Stappenbeck, loan of plants	Voucher 177	5.00	
May	10—Sanborn, Vail & Co., envelopes	Voucher 178	1.55	
May	10—Yawman-Erbe Manufacturing Company, ledger	Voucher 179	16 10	
June	3—Geo. H. Evans, stamps, express, etc	Voucher 181	8.50	
June	10—Edw. R. Hanlon, stenographic report	Voucher 180	40.00	
July	8—E. B. Nicholson, clerical work	Voucher 183	5.00	
July	8—P. A. Espina, engrossing	Voucher 182	9.30	
July	19—Hicks-Judd Company, printing	Voucher 184	86.50	
July	23—L. A. Kengla, expenses Committee on Publication	Voucher 185	16.25	
October	22—P. M. Jones, editing Journal	Voucher 187	150.00	
October	25—Hicks-Judd Company, printing	Voucher 186	16.25	
November	3—Geo. H. Evans, expenses Secretary's office	Voucher 188	8.65	
November	25—P. M. Jones, editing Journal	Voucher 189	59.00	
December	18—P. M. Jones, editing Journal	Voucher 191	59.00	
1903				
January	2—P. M. Jones, editing Journal	Voucher 192	50.00	
January	8—Hicks-Judd Company, printing	Voucher 193	21.25	
January	23—Hicks-Judd Company, Book of Delegates	Voucher 194	5.25	
January	24—P. M. Jones, editing Journal	Voucher 195	59.00	
February	5—P. M. Jones, editing Journal	Voucher 196	50 00	
March	2—P. M. Jones, editing Journal	Voucher 198	50.00	
March	2—Geo. H. Evans, office expenses of Secretary	Voucher 197	19.10	
March	5—Geo. H. Evans, salary as Secretary	Voucher 198	200.00	
March	6—E. E. Kelly, salary as Treasurer	Voucher 199	50.00	
April	1—J. J. Harrison, for P. M. Jones, editing Journal	Voucher 200	50.00	
				$1537.55
	To balance by cash on hand			3758.87
				$5296.42
	Dividend San Francisco Savings Union			$31.53
				$5327.95

C. G. Kenyon,
E. D. Wemple,
E. G. Frisbie,
Auditing Committee.

E. E. Kelly,
Treasurer.

SURGICAL AND HOSPITAL
SUPPLIES

DEFORMITY APPARATUS
Instep and Ankle Supports

TRUSSES, ELASTIC STOCKINGS
ABDOMINAL BANDAGES, ETC.

HOPPE AND McCONNELL
404 Sutter Street

California Limited

TO CHICAGO
WITHOUT A JAR

The best train for those who need care

Santa Fe

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

JUNE, 1903.

EDITORIAL NOTES.

"SCIENTIFIC" EDITORIALS.

We presume the committee which advised, in its report, that editorials in the JOURNAL should refer only to scientific subjects gave this advice after proper consideration, and we hope that the Society adopted it in the same way. But for the Publication Committee the restriction looms up as a sort of specter in the way to bar passage. Who has the time, in this busy life, to work out papers on the historical and statistical sides of scientific subjects, the sides usually considered in editorial columns, unless there be a special task set and a remuneration offered? And even if the Publication Committee could or would present to the Society a series of such papers, who would read them, and what good could they do the Society? Would they win us one good member? The Committee believes that it will have to construe the term "scientific" in a somewhat liberal way, for there are many subjects, germane to the government and improvement of the Society, which the Committee finds readily at hand, and which it wishes to lay before the society for consideration by its members. There are not many easily managed purely scientific subjects, and there is no time for the management of the hard ones.

It must not be inferred that the Committee believes it has a mission, or is about to set on foot any special scheme; it has neither mission nor scheme; but it is very much in earnest about the successful management of the JOURNAL. It intends that a journal published by the Society shall be for the Society, and that it shall be quite alive all the time. It cannot do this if it is only permitted, or if it only permits itself, to refer editorially to purely scientific subjects. It must deal with subjects which it will classify under the heading of social science or Society science—that is, the science of upbuilding this Society in all possible ways, so that it can be of use and do good in every conceivable manner. The Committee does not believe that the members will object to this interpretation of the instructions of the Society, but it asks that if the Committee's course is objectionable, those who object will state their grounds for objection, and it promises these its careful consideration. The Committee is aware that it was appointed to serve the Society, not to control it.

THE BOARD OF EXAMINERS.

The State Society, by a vote of twenty-six to four, has recorded its approval of the present medical licensing law, and its disapproval of any attempt to modify it by placing the control of the Board of Examiners in any hands other than those of the medical profession. The attack upon the law was but poorly masked under the guise of an attack upon an individual member of the Board, and its failure is not regarded as the failure to defeat an objectional individual, but as the last move of a most carefully laid plan to tear down somewhat from the protective wall placed about the public by the passage of the last medical practice act. Very few people were at any time deceived.

MILK SUPPLY SUPERVISION.

The necessity of medical supervision of the milk supply of cities as urged in the paper read by Dr. George H. Evans at the recent meeting of the State Society at Santa Barbara, and which will appear in full in the next issue of the JOURNAL, receives special and urgent emphasis at the present time, because of the appalling ravages of typhoid fever in the epidemic of that disease at Palo Alto. Such conditions will arise from time to time unless the medical profession awakens to the fact that it has a duty to perform, yet unfulfilled, to the public; a duty so imperative, that, unless undertaken and carried out, it will not be able to free its skirts of the charge of being accessory to criminal negligence. As a result of personal investigation the writer of this paper accumulated evidence to show that such epidemics are possible and probable at any time in this city. Bacterial counts of specimens of milk collected by him showed an average of over 223,000 germs to the cubic centimeter. An inspection of some of these dairies made an explanation of this pollution only too clear. No attempt is made to clean cows or milkers. The stables visited were, with one exception, foul, dark and ill-smelling. No medical inspection of the workmen on the farms was observed. The water supply in some instances was unprotected from the drainage of barns, houses and privies. Imagine the possible result in the event of a single case of typhoid fever occurring on such a farm, and remember that there is no inspection of the health of these workmen; that

mild cases of typhoid can easily exist unrecognized, until the polluted milk has carried its deadly errand into our homes, and has rendered desolate our hearts—not because the dairyman has been a criminal, but because the medical profession has committed a sin of omission! The county medical societies have a duty to perform. Will they still remain inactive in the face of these preventable epidemics?

UNIVERSITY EPIDEMICS.

The tragedy of Cornell, due to a polluted water supply, followed so closely by a similar, though fortunately less deadly epidemic of typhoid fever at Stanford University, should attract immediate and careful study at the hands of students of preventive medicine. For long it has been known that where many men from all sections are gathered together—as in military camps—typhoid fever and other diseases are to be carefully looked for and guarded against, yet that similar precautions should be taken in connection with large gatherings at university centers, does not seem to have been recognized. Where so many lives are placed in danger it would seem as though no amount of care or expense should be too much to ask, that the health and the lives of these young men and women may be properly safeguarded.

COMMITTEE ON TUBERCULOSIS.

The appointment of a Tuberculosis Committee by the State Medical Society at the Santa Barbara meeting was in keeping with the general scientific work of the session. This showed our State Society to be abreast with the times on this important subject. The tuberculosis question has always been of sufficient magnitude to demand the attention of medical societies; but never until recent times has its investigation seemed to promise any hope of relief. Today the world is astir. Public opinion is being educated to the fact that tuberculosis is a preventable and curable disease. Municipalities, states and nations are making the prevention of the spread of tuberculosis a matter of earnest consideration. That our State Medical Society did wisely in taking up this subject is patent from the fact that tuberculosis is very common in our midst. Not only have we a large proportion of native cases, but also a great army of imported cases who come here to receive the advantages of the far-famed climate which certain sections are reputed to possess. How to deal with tuberculosis in California is a subject in which every citizen of our State has a vital interest. It is the intention of this committee to investigate the subject as thoroughly as they can. They wish to obtain the number of cases of the disease in the State; to find out what proportion of these are native and what proportion imported; what measures are being taken, either by private or by public initiative, to check its spread; also to find out whether or not the physicians are in favor of taking measures for checking the disease. We bespeak for the committee the earnest support of every physician of the State, that their report may be complete and valuable. This investigation entails a great deal of work upon the committee and their work can be very much facilitated by a prompt reply to the circular letter which they intend to send to the physicians of the State.

THE POWER OF ORGANIZATION.

In at least one State the full value to the public and to the medical profession of thorough and careful organization is amply demonstrated. In Kentucky every medical office in the State is filled through the medium of the State and county medical societies. No appointment to a State, county or municipal board of health, vaccinator, insurance examiner, etc., is made without consultation with and reference to the organized medical societies, and no man can receive such an appointment unless he is enrolled in the county society of the county in which he lives. Improper or unjust legislation can no longer even be introduced, for the tremendous strength of organized effort would at once strangle it. It is said, on the highest authority, that there is not a single advertising quack nor illegal practitioner in the State—a result due wholly to the complete organization of the profession and the persistent and insistent demands of the organization. A physician legally licensed to practice medicine in the State of Kentucky can have no recognized professional standing unless he be a member of his county and *ipso facto* his State society. It is quite time that this condition prevailed in every State, and we of California should see to it that no further delay occurs in furthering our complete organization and securing full control of all things medical within our State.

REORGANIZATION OF PROFESSION.

The spirit pervading the American Medical Association at the New Orleans meeting in May, was distinctly and pronouncedly a harmonious and very profound desire for organization and reorganization of the whole profession of the country. No one could have sat through the heat and the toil of the House of Delegates at this 54th annual meeting without being greatly impressed with this one underlying fact. The desire to end old wars and refrain from touching old and nearly healed wounds, was everywhere manifest and was most convincingly shown in the reports from 44 State Societies, showing a tremendous increase in membership. And it is right that this should

be, for the power for good of a united profession of medicine cannot be overestimated. Our own State Society has, within a year, quadrupled its membership; within the next year we should at least double our present membership.

CODE OF ETHICS NOW INOCUOUS.

For twenty-two years has been waged a foolish war among medical men, over the "Code of Ethics" of the American Medical Association. Almost every year has seen some attempt to modify that monstrous document, but with little or no result. The profession in New York has been split into two factions for years, and envy, hatred and malice have been allowed to grow and flourish there, about the silly questions of "Code" or "No Code." The New Orleans meeting of the Association saw the death and burial of this old "Code," and the ceremonies attendant were joyous. The general committee which had the matter in charge presented a beautifully inocuous document "of a purely advisory nature," in which is set forth the "principles of medical ethics approved by the American Medical Association." Now let New York and every other State in the Union go ahead with the good work of organization until every reputable practitioner of medicine is a member of his local, State and national association.

REPORTS FROM COUNTY BODIES.

Once more the JOURNAL appeals to each and every member of the State Society for proper aid and assistance. We want to know and to publish the doings and the transactions of every County Medical Society in the State. But the Publication Committee is not ubiquitous; it can not attend all County Society meetings, nor can the editor distribute himself about the State for that purpose, much as he should like to do so. It therefore becomes the plain duty for each member of the Society to help by either sending such news to the JOURNAL himself, or see to it that someone in his County Society does forward the news desired. In this connection, Secretaries of County Societies particularly, and members generally, are requested to send in notices of the marriage of any member, and also a brief biography with the notice of the death of a member.

TROUBLE FOR DELINQUENTS.

A better way should be devised than suspension of members who neglect to pay dues. Several secretaries of County Societies complain that their lists of members are growing less through this carelessness on the part of delinquents, for it stands to reason that societies cannot carry in full membership those who do not contribute toward the expenses. One is apt to say that if people won't pay up they should get out; but the truth is that in almost every instance of delinquency it happens more through forgetfulness and procrastination than through any intention to shirk payment. Dropping from county societies carries with it dropping from the State Society and deprives the offender of the publications of the Society. If the JOURNAL is not being received regularly, or if you fail to get a copy of the Register when it comes out, it might be a good idea to have a little interview with the secretary of your County Society concerning your back dues. That matter being satisfactorily arranged, it will be found that the receipt of the Society's publications will be resumed with magical promptness.

STATE SOCIETY ANNUAL MEETING.

The Santa Barbara meeting of the State Society was noteworthy for many reasons and in many ways. It was the first meeting under the new plan, whereby all the business of the Society is transacted by a house of delegates composed of members duly elected by the affiliated county societies, and it demonstrated the wisdom of this plan beyond all question. Every county society was represented in the house of delegates, and as the vote of the house on almost every measure was practically, if not actually, unanimous, the fact is manifest that the measures adopted are approved, not by a group of men representing a small portion of the State, but by the physicians of every part of the State. The keen interest taken in the affairs of the Society by each and every delegate, is fairly strong evidence of the fact that the State Society is actually representative of the profession of the whole State, and that its interests are taken to heart by every County Society. No one need have the slightest anxiety as to the future of the State Society, now that it is in the actual control of the profession of the whole State.

STATE SOCIETY'S SCIENTIFIC WORK.

An exceedingly gratifying feature of the last meeting of the State Society was the high tone of so very many of the papers read and the ensuing discussions. Not within the last ten years at least, have the discussions been so extensive or so general, and probably few if any members in attendance left Santa Barbara without feeling a certain amount of personal gain; without realizing that he had learned enough of other men's ideas or view-points to make the trip well worth his while. The removal of all questions of business or politics from the general meetings greatly helped this feature of the meeting and was certainly regarded as a blessed relief by very many. That the Society may be very large and still lose noth-

ing, but rather gain in its scientific value, seems to have been clearly demonstrated. Let us grow still more—let us double our present membership before next April, and then we may look forward to a still bigger attendance, to a yet more tranquil business session, and to an even superior scientific program. This may be done if each one will help all he can.

ADVISE REMOVAL OF CHINATOWN.

The State Board of Health recently passed resolutions recommending the removal of "Chinatown" from its present location in the heart of San Francisco. The Board asserts that the presence of "a large alien and unassimilable population is a constant menace to the health, commerce and industries, not only of the city itself, but also of the State and even the nation at large." Just how the removal is to be effected has not yet been announced, but doubtless some way will be suggested. In Honolulu the Chinese quarter became unsanitary and otherwise objectionable, and very heroic measures were taken to cleanse the disease-breeding locality. It was purified with fire. Probably the torch could not safely be employed in ridding San Francisco of its pest-hole, but until the dozen blocks are absolutely obliterated and the ground which is now saturated with filth, be given liberal treatment with chloride of lime and carbolic acid, the quarter will require close watching. Work of the right sort has been done and is being prosecuted by the Federal, State and City health officers acting in harmony, and Chinatown is just now cleaner than it ever was before. That is saying a great deal, but the disinfection must be continued, in fact be constant, in order to render the quarter safe.

THE REPORT OF THE A. M. A. COMMITTEE ON MEDICAL EDUCATION.

The JOURNAL has not had time as yet to consider even a moiety of the work done by the House of Delegates of the American Medical Association at the New Orleans meeting, but it wishes to begin this task at once and will therefore call attention to one committee report, that on medical education. It is to be noted in this connection that the address of President Billings was on the subject of medical education in the United States, and that it has also been the subject of papers by Vaughn of Ann Arbor, De Schweinitz of Washington, D. C., and Parsons of Albany (these three in the *Journal of the A. M. A.* for 25 April, 1903) so that it is plain that the subject is one prominently before the professional mind just at present, and it is not at all unlikely that the report of the committee here to be referred to mirrors the consensus of opinion of many men not on the committee. The report refers to the fact that elevation of the standard of medical education was among the original objects of the American Medical Association, and was so stated in 1846. It calls attention to the fact that national legislation can never accomplish this, for it cannot infringe on the internal government of any State in the matter, and in these words it emphasizes the need, the obvious need, of the raising of the standard:

> Medicine demands a better order of intellect and better preparation than is possessed by the poorer part of the men who are to-day entering its ranks in America. The other great world powers, our competitors in commerce, art and science, demand in their medical men as a minimum requirement a preliminary education equal to or more than our best high schools, and then five years of medical study. Such requirements are none too high, and we in this country cannot much longer afford to remain satisfied with anything in medicine short of the best.

A means of accomplishing the end is suggested; namely, the establishment of an educational prerequisite for admission to the American Medical Association, as it is above and includes all universities and medical schools, all examining boards and all State and County Societies. It is in this that the real point of the recommendation lies, and it shows very quickly the result of the unification of the profession. For if this report is adopted—it has up to the present only been accepted and ordered printed—it will be obligatory on each State Society to pass a similar resolution, and then each county will have to do the same, and it will come to pass that the standard set by the central organization will be that for the smallest integral part of it.

The recommendation is not too sweeping to be practical and easily put in force. It is merely that no man be eligible to the Association who has not had a high school education, or its equivalent, and has not studied medicine four years, and at least seven months each year. Moreover, this regulation is not to go into effect until 1908, so as to give time for all State and county societies to conform to it, and especially for all medical schools to set their courses in conformity with it.

There is one thing, however, which is obvious at the very beginning—the standard is too low so far as the preliminary education is concerned. It is not possible for a man to get out of a high school education all of the training necessary to enable him to successfully grasp the questions of medical science in their entirety. Medicine draws from practically every other science, and uses them all in the making of diagnoses or the prosecution of courses of treatment. A great deal more than the high school smattering is absolutely essential for the medical student, and the medical practitioner is going to need very much more than the student. But while this is true, it is still right for the Association not to demand too much at this time; it will be easier to screw

the matter up higher five or ten years hence than now.

There is another point to be noted. President Billings called attention to the fact that medical men are being produced to-day too rapidly. Taking one medical man to six hundred of the population as the present proportion, he showed that two thousand too many physicians are produced each year. This cannot be corrected as long as the proprietary school can flourish, with no standard of admission or graduation. But if the proprietary school has to enforce the same law of prerequisites as the university school its value in the eyes of the illy-prepared man is lost, and he will either meet the proposition by preparing himself for the university school or he will turn his energy to something not medicine. It is not unlikely that these latter will amount to a considerable number and that by this means the overplus of medical men may be reduced, and with this will inevitably come the passing of the proprietary school, which is run for revenue only, the kind of a school that takes $150.00 in fees from a student each year and spends on his whole education less than one-fifth of that amount. Surely this is a much wished for consummation.

THE CITY AND COUNTY HOSPITAL AND THE TRADES UNIONS.

The management of the City and County Hospital is a subject which has been often before the public. It has been presented in every possible way, from a lurid, and often silly, story of some minor event in what may be called and may be the *social* life of the institution, to a discussion of a change in a major office, written up from a partisan viewpoint. Not one of these disclosures of the methods of the governing power of the place has ever had the slightest effect; probably they were not expected to have any. The old abuses perpetuated themselves, the ancient manners still dominated, and the hospital went on as it had been in the way of going on.

Now, all this may be right or it may be wrong. If it is right the controlling power and the institution can easily stand the scrutiny of outsiders. Every question regarding ways and means can be clearly and satisfactorily answered. All appointments can be easily justified; nay, more, all appointments can be justified to the point of showing that there was not, inside or outside of California, a better appointment possible.

If it is not right, however; if a little, or more than a little, of improvement is possible—*and if it is possible, it is at once an obligatory improvement*—who are the people most interested? Who are the people most likely to be affected, for good or for bad, by the gain or loss of that improvement?

It cannot be the general body of the taxpayers. They do not go to the hospital; they never think of it except as they skip the articles which refer to it in the morning papers; it cannot be the corporations of the city which can be affected by the good or bad administration of the place, for it is just as true that these corporations are bodyless as it is that they are soulless. It cannot be the trades unions, nor the members of the trades unions, who may be interested in this matter. The union itself is, like the corporation, bodyless, and the member of the union is to-day easily above the need of assistance by the hospital.

It must be that there are some people who do not come under any of these classifications, some people who do not belong to unions; for the hospital is always full. These are the people most interested, and even vitally interested in the way the institution is run. These are the people whose lives depend on the proper administration of the place, and the term "proper administration" is intended here to include everything; everything from the selection of the butcher and the milkman to the cooking and distribution of the meat and milk, and also to the prompt and cleanly removal of all the uneaten and undrunk portions, so that no focus for saprophytic or infective process may be in the place. It includes not only the buying of drugs and dressings, but also the dispensing and disinfection, the administration and application, respectively, of these things.

Now these sub-union people, anomalous as they are in this era, must still have certain rights, simply because they are alive and are in the hospital. Inasmuch as they obviously have no organization they are powerless, for there is organization on the other side. Who will go to their aid? It is the inherent duty of the strong to protect the weak and the nearest strength is the strength that weakness must first turn to. The sub-union unfortunates must look first to the unions for help. They are the fortunates who have rescued themselves from the need of civic charity; they are the ones to appreciate the possible horrors of hospital maladministration; they are the particular ones who, in all human charity, should be swiftest to see the apparent evils, the quickest to perceive the inevitable result of an evil uncorrected, and the keenest to demand the entire reorganization of the administrative scheme so that the place shall be purged of moral and physical dirt, and made clean and sweet. If the union has ever been hungry, it should insist that the sub-union man be fed, and fed with good and wholesome food; meat that is properly cooked, milk that has no adventitious water. If the union has ever ached or been broken, it should be the more anxious that the sub-union brother shall, in his day of mischance, have a clean bed and a soothing draught. The JOURNAL is sure that if the unions will turn their attention to

this matter—not by sending a "walking delegate" nor a talking delegate, but by sending an intelligent and honest committee to look into and about the place, they will then demand of civic authorities more money and better administration, with the penalty of the loss of votes if the demands are not promptly and properly granted. Then a great change will come over the whole scene and so far from being the place of last resort in the darkest hour it may be the most obvious place of refuge in any time of disaster or illness. Then, oh unions, there will be those, outside your ranks who will rise up and call you blessed!

Now, this is a serious suggestion. The unions have entered politics. They have elected a Mayor and he has appointed other union men to city offices. In the doing of this the unions have put themselves in a position where they are open to criticism quite as much as does any man who enters the same field. The man must stand or fall according as his acts are good or bad. This has been shown so often in American politics that it needs no illustration. The unions are subject to the same inevitable law. If they reach out for what is the best, "the greatest good of the greatest number" they will stand more firmly day by day. If they are too short-sighted to see this, they will certainly fall, no matter what their numerical strength, for a time will come when opposition will arise, even in the union ranks. At present they are in the flood tide. Can they be wise?

The management of a hospital may seem a small matter compared with getting some offices or striving to control the business of employers; but there is no time when a man—union man or non-union man—wants care and assistance more than when he has to go to a public hospital, a place in which he is simply "a case." That man wants the hospital to which he has to go conducted on the lines of the broadest humanitarianism, and according to the most approved hospital methods. He is not then interested in the politics of the superintendent or nurse, but he is in their efficiency as hospital officers. He would much prefer that his personal enemy provided good milk rather than to have his friend getting fat on a contract by scamping that article; and the same is true of every phase of the matter.

It is plain, too, that the unions are near to the hospital; some of their members may not be thrifty enough to profit by the present flush times, or these times may not last and may be succeeded by days of little work and reduced pay. In those days the sub-union man may not be alone in the hospital. It is not enough that the unions employ a physician on contract to dose them. That work, cheaply paid for, is always done in much the same way, and besides, the physician's contract does not include the providing of food, light and fuel. When these are lacking, the hospital looms up.

It is an opportune time for the unions to think of this. They have power now, let them take up the matter of the City and County Hospital; let them take it up in a broad and understanding way, not in the conventional union way. Let them ask those of their membership who have been in the hospital how they fared; let them send one or two presidents of unions there to try the place practically. Out of these investigations and experiments should come a call, expressed in no uncertain terms, for a bettering in buildings, food and attendance. The exclusion of politics should be demanded and the most rigorous civil service methods should be installed and kept there. The unions should see first, that provision is made in the hospital for unfortunate union and sub-union men, as individual union men would like to make for themselves in their own homes. The unions can easily do all of this. Will they do it?

REGISTER OF PHYSICIANS.

Preliminary notices will soon be sent out concerning data for the forthcoming Register of Physicians. In order that the Register may contain the name of every physician in the State, it will be necessary for those receiving the information cards to fill them up carefully and return promptly. There is a vast amount of work to be done and it is the intention to have it done systematically and thoroughly; but much depends on individual interest on the part of the practitioners themselves. A reference book has most value in accuracy. If each doctor will see to it that his own record is furnished without error, then he may be certain that his name, address and dates of certificates will be given correctly.

RECIPROCITY.

Members of the State Society may contribute in certain ways toward the material support of the JOURNAL, and do so with perfect propriety. The JOURNAL is as much the property of one member as it is of another. There is no good reason why members of the Society should not exert themselves to upbuild their own publication. If you do not find the advertisements of firms with which you deal in the JOURNAL, probably the dealers would advertise in it if the matter be called to their attention. This is no begging proposition, by any means; the JOURNAL gives the best possible value in the way of circulation—and particularly in the character of its circulation. The State Society is not asking for contributions—only reciprocity.

DEATH.

Dr. Clinton Henry Lubbock died at his home in Alameda, May 21, 1903, after suffering paresis for several months. Dr. Lubbock was born in Texas in 1861. Took degrees from College Medicine State Missouri, and Med. Dept. University City, New York.

OFFICIAL MINUTES OF THE LEGISLATIVE BRANCH

OF THE

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

AT ITS THIRTY-THIRD ANNUAL SESSION

HELD AT

POTTER HOTEL, SANTA BARBARA, APRIL 21-23, 1903.

First Session, April 21, 1903.

Meeting called to order by the president, Dr. F. B. Carpenter, at 8:25 p. m. Roll call of delegates, and absentees noted. President presented his report, which was referred to a special committee, appointed by President, consisting of Drs. J. H. Parkinson, E. Rixford, J. H. Barbat, D. A. Hodghead, R. F. Rooney.

The report of the Secretary was read and referred to the same committee.

Dr. Rixford moved that this committee also consider the advisability of adopting the Constitution and By-Laws for State Societies drafted by the American Medical Association, and report at the next session. Motion seconded and carried.

Report of the Board of Trustees was read by the chairman, Dr. C. G. Kenyon, and on motion also referred to the above committee.

A protest from a San Diego physician was introduced by Dr. D. A. Hodghead and referred to the Judicial Council.

The report of the Treasurer was received and placed on file.

New Business.

On motion Mr. Horsburgh of the Southern Pacific Company was requested to address the Legislative Branch regarding railroad rates to the next convention.

It was moved and seconded that the Secretary wire the proprietor of the Paso Robles Hotel regarding rates, which was carried.

A communication from Dr. Foster of Humboldt County was referred to the Judicial Council.

A communication from the Census Office at Washington was referred to the Committee on Medical Legislation and Education.

The report of the Comittce on Publication was read and on motion referred to the special committee previously appointed.

Dr. E. Rixford of San Francisco proposed an amendment to the By-Laws which was read and posted in accordance with the provision in the By-Laws regarding amendments.

A communication from members-at-large was read and after considerable informal discussion the Chairman ruled that the delegates-at-large were properly accredited.

A bill from the Memorial Committee for $4.35, typewriting and postage, was read and referred to the Auditing Committee.

A communication from the Secretary of State to the effect that the Medical Society of the State of California was incorporated November 10th, 1870, was read and ordered placed on file.

The report of the Auditing Committee was received.

Adjournment 10:30 p. m.

GEORGE H. EVANS, Secretary.

Second Session, April 22, 1903.

Meeting called to order by the President, 8:30 p.m.

The first business taken up was the matter of the selection of a place for the next annual convention.

A communication was received from J. A. Horsburgh, Assistant General Passenger Agent of the Southern Pacific Company regarding special rates to and from Paso Robles.

A communication was also read from W. A. Junker, proprietor of the Paso Robles hotel, regarding terms.

Moved by Dr. J. H. Parkinson, seconded by Dr. H. G. Thomas that Paso Robles be selected as the next meeting place. Dr. J. L. Asay placed San Jose in nomination for the next convention. Dr. B. F. Church placed Los Angeles in nomination. On vote of the delegates, Paso Robles was selected.

Election of Officers.

President—Dr. H. Bert Ellis, Los Angeles, nominated by Dr. W. W. Kerr, seconded by Drs. Wills and and Sherman.

Vice-President, Dr. W. H. Flint, Santa Barbara, nomimated by Dr. J. H. Barbat, seconded by Dr. W. W. Kerr.

Second Vice-President, Dr. G. A. Hare, Fresno, nominated by Dr. Wm. LeMoyne Wills, seconded by Dr. Harry M. Sherman.

Secretary, Dr. George H. Evans, San Francisco. nominated by Dr. H. G. Brainerd, seconded by Dr. J. Henry Barbat.

First Assistant Secretary, Dr. H. P. Hill, San Francisco, nominated by Dr. W. W. Kerr, seconded by Dr. H. M. Sherman and Dr. L. W. Allen.

Second Assistant Secretary, Dr. Z. T. Malaby, San Francisco, nominated by Dr. W. I. Terry, seconded by Dr. W. L. Wills.

Treasurer, Dr. E. E. Kelly, San Francisco, nominated by Dr. J. H. Barbat, seconded by Dr. H. G. Brainerd.

There being only one nominee for each of these offices, the Secretary was ordered to cast the ballot, which was done individually, and the above-named duly elected to the several offices for the next year.

Board of Examiners: Drs. Dudley Tait, F. M. Pottenger, D. E. Osborne, W. S. Thorne, S. H. Buteau, were placed in nomination by Dr. J. H. Barbat. Dr. L. H. Thorpe was placed in nomination by Dr. W. L. Wills. Dr. J. H. Parkinson and Dr. D. A. Hodghead protested against the nomination of Dr. Dudley Tait. Dr. J. H. Barbat withdrew the name of Dr. F. M. Pottenger. After considerable informal discussion, during which several points of order were raised, it was moved by Dr. J. H. Parkinson that the names as nominated be voted on as a whole. A protest being entered by Dr. D. A. Hodghead, Dr. J. H. Barbat moved that ballot be taken individually, which motion was seconded and carried. The results of the ballots were as follows:

Dudley Tait, 26 affirmative, 4 negative; D. E. Osborne, 29 affirmative, 1 negative; W. S. Thorne, 29 affirmative, 1 negative; S. H. Buteau, 30 affirmative; L. H. Thorpe, 29 affirmative, 1 negative.

Alternates to the Board of Examiners: Dr. Clark Burnham of San Francisco, nominated by Dr. W. I. Terry; Dr A. W. Kirk, of San Francisco, nominated

by Dr. J. H. Parkinson; Dr. F. M. Pottenger of Los Angeles, nominated by Dr. H. M. Sherman.

There being no opposition, the Secretary cast the ballot and the above named were duly elected alternates.

Board of Trustees: Dr. J. H. Barbat placed in nomination the following: Drs. C. G. Kenyon, C. W. Nutting, Thos. Ross, F. L. Adams, P. M. Jones, A. W. Morton, G. A. Hare, W. S. Fowler, J. Rosenstirn, F. C. E. Mattison, Walter Lindley.

Dr. J. C. King nominated Dr. J. G. Baird of Riverside; Dr. W. I. Terry nominated G. F. Reinhardt of Oakland; Dr. Barbat withdrew the names of Drs. Lindley and Fowler, and on vote of the delegates, the following were elected to serve for the ensuing year:

Drs. C. G. Kenyon, San Francisco; C. W. Nutting, Etna Mills; Thos. Ross, Sacramento; F. L. Adams, Oakland; P. M. Jones, San Francisco; A. W. Morton, San Francisco; G. A. Hare, Fresno; J. Rosenstirn, San Francisco; F. C. E. Mattison, Pasadena and J. G. Baird, Riverside.

Delegates to the A. M. A.: Dr. J. H. Barbat placed in nomination Drs. C. G. Kenyon and P. M. Jones who, on vote of the House of Delegates, were elected as representatives to the national body.

Drs. C. D. Ball of Oakland, F. L. Adams of Alameda and H. G. Brainerd of Los Angeles were nominated and elected as alternate representatives to the A. M. A.

The Board of Trustees, through its chairman, Dr. C. G. Kenyon, made the following report on the matter referred to it at the previous session:

"In the matter of the protest to the affiliation of the San Diego County Medical Society, referred to the Judicial Council, we have to report that after carefully considering a protest referred to your council by certain practitioners of San Diego County, and after hearing both a representative of the protestants and of the Society, the following resolution was introduced and passed unanimously:

"*Resolved:* (1) That the Judicial Council notify the protestants that the San Diego County Medical Society is affiliated with the Medical Society of the State of California.

"(2) That the Council recommends that the San Diego County Medical Society so amend its Constitution and By-Laws as to eliminate all reference to contract or lodge work.

"(3) That the Council earnestly recommend that further efforts be made by the San Diego County Medical Society to harmonize the personal differences and difficulties of the physicians of San Diego County, and endeavor to obtain eventually a united and harmonized whole."

A motion that the report be received was carried. A motion to adopt the report was amended by Dr. W. W. Kerr to the effect that the report be adopted with the elimination of the clause relating to lodge and contract practice. The amendment was carried.

The report of the special committee was read by the chairman, Dr. J. H. Parkinson, who recommended that the report be read and adopted section by section.

SECTION 1. Committee recommends that the President may, at his discretion, invite eminent scientists, not members of the profession, to address the Society at its annual meetings. (Adopted.)

SECTION 2. Committee recommends that, hereafter, the Society shall refuse to accept a banquet or other entertainment, involving considerable outlay, from the local profession at the place of annual meeting. It further recommends that the Committee of Arrangements be authorized, at its discretion, to provide such entertainment through voluntary subscriptions from members desiring same, but without cost to the Society as an organization. (Adopted.)

SECTION 3. Committee recommends that the salary of the Secretary be increased from two hundred dollars ($200.00) to four hundred dollars ($400.00) per annum and for this purpose recommends an amendment to Article XII, Section 2, By-Laws, by changing first two lines to read: "The annual salary of the Secretary shall not exceed four hundred dollars ($400.00)." (Adopted.)

SECTION 4. Committee recommends that the delegates be reapportioned as follows: One delegate for every twenty-five members or major fraction thereof. and for this purpose recommends an amendment to Article IV, Section 2, By-Laws, as follows:

Article IV, Section 2, line 1. "Each county medical society entitled to representation shall have the privilege of sending to the State Society one delegate for every twenty-five of its members and one for every additional major fraction of that number; but each affiliated society having less than twenty-five members shall be entitled to one delegate." (Adopted.)

SECTION 5. Your committee has been unable to find any provision for the election of alternates. It therefore recommends an amendment to Article IV, Section 2, By-Laws by adding after the word "delegate," line 6: "Alternates shall be elected at the same time and in the same manner." (Adopted.)

SECTION 6. Committee recommends that there shall be added to the duties of the Board of Trustees the organization of the profession by the formation of societies where none exist and the revivifying of those already organized, but inactive. Part of this duty would be the formation of societies in certain sections embracing two or more counties, so as to insure uniform representation in the Legislative Branch. The committee believes that much of this work may be accomplished by Trustees working in their respective districts, but should this be found insufficient, the Board can report its experience and recommendations at the next annual meeting. To make this recommendation effective the following amendment to Article III, Section 6, By-Laws, is offered: By adding after the word "transactions," on line 22, "Each Trustee, other than those elected at large, shall, in his Congressional district, proceed to organize the profession so that every county or association of counties be represented by a medical society." (Adopted.)

SECTION 7. The committee, by a majority vote (two members not voting), recommends that the publication of the transactions, in journal form, be continued for another year, and that such publication be placed in the hands of the Board of Trustees, which shall delegate to the Committee on Publication such authority as it deems proper. The committee further, and unanimously, recommends that all editorial matter shall be limited strictly to the discussion of scientific subjects and that no editorial dealing with controversial matters, or that can in any way be construed as personal or partisan, shall appear in the transactions. The committee feels that the question can be covered in this manner, and therefore does not offer an amendment to the section. Article III, Section 6, By-Laws. (Adopted.)

SECTION 8. Committee recommends that the Board of Trustees be authorized to publish annually a medical directory of physicians throughout the State, and that a copy shall be furnished free to every member of the Society, the remainder of the issue being sold in such manner as the Trustees may direct for the benefit of the publication. (Adopted.)

SECTION 9 Committee recommends that the Secretary be authorized to purchase a filing cabinet at an expense not to exceed fifty dollars ($50.00). (Adopted.)

SECTION 10. Whereas the permanent members of this Society are not eligible for election as delegates to the American Medical Association, the committee recommends that a special committee of three be appointed by the incoming President to confer with these members and endeavor to induce them to affiliate with a local society, where one exists, and to make such suggestions as will best meet the difficulty, reporting at the next annual meeting. (Adopted.)

SECTION 11. Committee recommends that the Secretary communicate with the secretaries of the local societies, enclosing a list of delinquents in each society, a statement of the facts and a request that the local secretary collect and remit. (Adopted.)

SECTION 12. The committee finds that the provisions in the Constitution relating to members-at-large create a defect in the general scheme of medical organization. The committee believes that the provisions should be abolished and that this class of membership should not be carried on the roll of the Society. There appears, however, to be a legal question involved as to the effect of the requirement of an added condition, to wit, the joining of the affiliated local society. The committee therefore recommends that this matter be referred to the Board of Trustees, with instructions to procure a legal opinion upon the point and to report at the next annual meeting. Meanwhile it is suggested that the matter of affiliation be referred to the committee mentioned in paragraph 10, to the end that by the next annual meeting members-at-large, as such, shall have ceased to exist. (Adopted.)

SECTION 13. The committee finds that many defects have developed in the present Constitution and that certain contingencies have not been provided for; with a view to curing these defects a draft Constitution and By-Laws is herewith submitted. This document is, in effect, the Constitution for State Societies offered by the American Medical Association and modified to suit local conditions. The committee recommends that this draft, together with the present Constitution, be placed in the hands of a special committee of five, to be appointed by the incoming President, for the purpose of thoroughly studying the subject and presenting the whole matter to the Society at its next annual meeting. (Adopted.)

Signed, James H. Parkinson, Chairman; D. A. Hodghead, J. Henry Barbat, R. F. Rooney, E. Rixford, Secretary.

Dr. J. H. Parkinson moved the adoption of the report as a whole, which motion was seconded and carried.

Dr. H. M. Sherman moved that the Secretary give the incoming President a list of the delinquents; motion seconded and carried.

Dr. H. M. Sherman presented the following resolution regarding a nominee for a president of the State Board of Health:

"Whereas there now exists by the death of the late Dr. M. Gardner, a member of this Society, a vacancy in the State Board of Health,

"*Resolved:* That the Medical Society of the State of California recommends to the Governor the name of Dr. John M. Williamson, of San Francisco, a member of this Society, as a nominee for the appointment."

Which resolution was adopted.

Dr. M. W. Fredrick presented the following resolution:

"*Resolved:* That out of the funds contributed by, and belonging to the members of the Medical Society of the State of California, the Trustees are authorized to appropriate such an amount as is necessary to secure the subscription of each member to the California State Journal of Medicine."

Which resolution was adopted.

Dr. J. H. Barbat moved that $43.00 be paid to the President for expenses incurred by himself and the Secretary in the interests of Medical Legislation. Motion seconded and carried.

The bill from the Memorial Committee, which was endorsed by the Auditing Committee was ordered paid.

Adjournment 11:50 p. m.

GEORGE H. EVANS,
Secretary.

(The official minutes of the Scientific Branch will be printed in the July JOURNAL.)

REPORT ON MEDICAL LEGISLATION AND EDUCATION*.

BY HENRY GIBBONS, JR. A. M., M. D.

Some record should be kept of Legislative proceedings relating to medicine, therefore the following report is presented:

Three bills proposing modification of the existing law regulating the practice of medicine in the State of California were introduced at the recent session of the Legislature. Assembly Bill 486 was withdrawn from the file before action was taken upon it, Assembly Bill 129 was not reported upon by the Judiciary Committee to whom it was referred, and Senate Bill 365 did not succeed in passing the Senate. None of these bills, therefore, became laws and the medical law remains as now found on the statute books, and in the last published register of physicians.

The primary aim of all these bills seemed to be to transfer the power of appointment of the members of the Board of Examiners from the societies to the Governor. In fact this was the only change proposed in Senate Bill 365, except that excess of money above expenses received by the Board were to be paid into the State treasury instead of into the treasuries of the State societies.

In Assembly Bill 486 the Governor was empowered to appoint the nine members of the Board, in equal numbers from the three State medical societies, which were authorized to submit lists of names to him from which to select. This bill made it the duty of the Board of Examiners to investigate all medical colleges in the State to determine if they are teaching according to the provisions of their announcements, and empowering said board to require such colleges to keep up to their standards and the standards of the national societies.

The bill also provided that if a physician should be arrested for practising without a certificate he should be released from penalty on exhibiting a diploma, filing application for certificate and paying the fee of $20.00.

Assembly Bill 129 was more radical. It provided for the appointment by the Governor of seven bona fide residents of the State and grad-

*Read at the Thirty-third Annual Meeting of the State Society Santa Barbara, April 21-23, 1903.

uates of legally chartered medical colleges, not more than two of whom should at any one time be members of any one chartered State medical and surgical society. Candidates for membership on the board were to be suggested by the State societies. Section 3 provided that the board, immediately on organizing should require all persons practising medicine or surgery, to register. Those possessing satisfactory evidence of graduation and paying a fee of $10.00 were to receive certificates, and all others upon paying a fee of $25.00 were to be admitted to examination, and if found qualified, granted a certificate. The bill further provided that on and after September 2, 1903, all applicants for registration should be subjected to examination. A later section (11) provided that those already holding certificates should be entitled to practice medicine and surgery as before under such certificates. The intent of this bill is obvious. It was to make a loophole for some one without credentials to secure a legal right to practice medicine. I hold it to be fortunate for the medical profession and the public that none of these bills were passed. Frequent changes in existing laws are productive of uncertainty, annoyance and irregularity. It is better to suffer some little inconvenience than to fly to ills we know not of. But aside from the evils of mere change there is intrinsic objection to the bills..

One opened the way to the admission of ungraduated men to practice, two gave equal representation in the Board of Examiners to the three State Societies, and all three gave the appointing power of the examiners to the Governor, when it should undoubtedly remain with the societies. I congratulate this Society upon retaining its power to appoint the larger number of examiners. It is to be hoped that we have done, for some years at least, with attempts to modify the present law. I may add that these results are probably due in large part to the interest and attention of your president, Dr. Carpenter.

The matter of the preliminary education of those intending to enter upon the study of medicine is awakening much interest in various directions, and may well deserve the attention of this society. The high school training is a great advance upon the requirement of a few years ago. The degree in science exacted by Johns Hopkins is probably a higher standard than can ever be expected of the vast majority of medical colleges. While it appears that something more than a high school training is desirable and is even requisite for the best preparation for the study of medicine, it is equally true that eight years from the high school to the doctorate is excessive and apparently unnecessary. When a year of hospital experience is added there is still a greater accentuation of this point. At a time when Stanford, Yale and other universities have felt the importance of permitting a wider latitude in electives, it is especially pertinent to inquire if something cannot be done to relieve the situation in the direction of medicine. The years required to secure the two degrees is a serious obstacle to a vast number of deserving and capable men. To very many it is positively inhibatory. How many of those now in attendance upon this session of our Society would have been physicians had they, when considering the study of medicine, found before them three years of high school, four years of university, and four years of medical college? Aside from this objection it is a matter for question whether the long period of training is not calculated to bind and trammel rather than to favor that independence of thought and action so characteristic of our countrymen. Whether, in other words, it has not a tendency to make followers, rather than leaders and practical men. It is not well to keep children too long in leading strings. And there is another side. The termination of this long period of preparation finds the student not less than twenty-six or twenty-seven years of age—often considerably more—and only just ready to enter upon that trying period of waiting for a practice which may not become remunerative for years.

Since the sciences which are at the foundation of medicine are now so widely and generously taught in the leading universities it has appeared to me eminently just to the student and to the profession that a student graduating in such department of a university should be given advanced standing to the second year in a medical college. If objection be made to this plan, surely none can be made to it if the universities provide a special course leading to medicine, and including in its curriculum such subjects as comparative anatomy, biology, embryology, botany, chemistry, histology, physics, hygiene, Latin and German, and perhaps physiology. It appears to me that the student should be justly entitled to the two degrees after the seven years' course thus outlined.

Indeed, looking at it from the physician's standpoint I am not sure that three years in a specially provided university scientific course followed by three years in a medical college might not justly entitle to the two degrees. This would unquestionably equal at least five years' study in a medical college. I am even inclined to go a step further and to consider whether two years in a special scientific course in a university might not admit to the second year in a medical college without, however, leading to the scientific degree. But the two years should be taken in a university providing and well prepared to provide the special course already outlined. Surely such a course could be more than equal to any year in a medical college, and be deficient only in the

practical anatomy of the soft parts, which could readily be made up later. As I said in the beginning this is a question well worthy the attention of the profession, and I trust it may receive such attention at the hands of this Society..

REPORT OF MEDICAL EDUCATION AND THE WORK OF THE BOARD OF MEDICAL EXAMINERS.*

By W. S. THORNE, A. M., M. D.

Mr. President and Gentlemen:—It is meet that we, your authorized and accredited servants, should render at this time an account of our stewardship. It therefore becomes our duty and pleasure to present to you a brief history of our work, together with such suggestions and recommendations as have occurred to us during our term of office. Upon the threshold of this enquiry permit me to assure you that the consciencious and efficient discharge of the duties of the Board of Medical Examiners is attended by many perplexities and harassing responsibilities. To comprehend the situation we should remember that the Board of Medical Examiners is putting into effect a new law that has elicited wide-spread interest and much antagonism. It is inaugurating a new system. It is aiming to establish a uniform standard of medical education. It suggests the necessity for higher ideals and more thorough training in scientific methods. It is also educating the laity to favor and to demand a higher standard of medical efficiency. Hence, its functions are to some extent judicial, diplomatic and educational. Harsh criticism, adverse opinions and open rebellion to the law have been met with becoming discretion and firmness. Society is so constituted that when once it has settled down to an established order of things, it regards with suspicion and jealousy changes or interruptions. Especially is this true of those laws that relate to personal action—the right to do as one pleases—to pursue untrammeled a certain profession, trade or method of obtaining a livelihood. The obnoxious character of such laws is well exemplified in the game law and the income tax. The recent law relating to the practice of medicine may be regarded as a conspicuous example of such statutes. It has been the settled policy of the Board to conduct the examinations with the utmost fairness. Theoretical inquiry has been carried only so far as to satisfy the examiner of a moderate acquaintance with medical literature on the part of the applicant. Catch questions, abtruse theories and speculative matters have been rigidly excluded from our lists. The practical methods of performing surgical, obstetrical and gynecological operations according to modern methods of asepsis have received our especial attention. We have invited discussion in the written answers to questions in order to elicit the reasoning faculties and to give a more comprehensive and satisfactory test of the applicant's knowledge. It has been the constant policy and practice of the Board to make the examinations as practical as is consistent with the high grade of the examinations, the subjects treated and the scientific standard to be conserved. If matters yet unsettled in the professional mind have been touched upon, the personal opinions of the applicant, however expressed, have been placed to his credit. The attitude of the Board to the applicants has been characterized by the keenest sense of professional honor and fairness. A procrustean standard might well be established for a homogeneous group, but be it remembered that in a State examination the questions in all fairness should be framed with the view to test the qualifications of those fresh from college, as well as the trained practitioner who graduated decades ago, and whose knowledge is largely practical. It may be said that it is enough to set a high standard of scientific attainment and let all reach it who can, irrespective of the variable standards required by the countless schools prior to the enactment of the present law. Such a view of the duties of a board of medical examiners at this juncture would be, in my opinion, unjust, narrow and impolitic in the extreme. A more liberal construction of its duties within the purview of the law must be recognized and maintained. The trained and duly licensed practitioner, whose skill and usefulness is attested by entire communities, should not be deprived of his well-earned honors or the fruits of his life work by a trick of the pen or a misconception of the law. We have, therefore, in our official capacity, deemed it expedient to exercise a wise discretion in dealing with those practitioners whose age, experience and practical knowledge recommended them to our consideration. In every and in all cases the hopelessly ignorant and flagrantly illiterate have been rejected. The discouraging effect upon commercialism in medical education by the institution of State examinations cannot be overestimated. The enormous increase of medical colleges of low standard throughout the country has effectually thwarted the efforts of a conscientious minority to advance the profession to higher attainments in medical knowledge. The great body of medical men were gauged by the average of the majority of its members. Only a small percentage of American colleges were recognized abroad as of respectable standing. Diplomas issued by the larger number of colleges were not accepted as evidence of any medical or scientific attainment. Even in the Spanish Americas, American degrees did not entitle the holders to practice medicine. Hence it came to pass that each year beheld an increasing exodus

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

of students to Europe to obtain foreign qualifications. The significance of these facts was not lost upon the American people. In every community the holders of foreign degrees, or those who had even studied abroad, took rank and precedence. Diploma mills were springing up on every hand with no educational qualification for admission or any definite standard of attainment. The M. D. degree represented anything from that ignorance of medicine born of illiteracy to scholarship in both general and medical education. In a pedagogic sense there was no medical curriculum. The first step looking to reform in medical education was taken by the "Association of American Medical Colleges," requiring a four years' course. This event marked the upheaval of public opinion against the abuses of medical education, rather than actual reform. Medical colleges could not be remodeled, and the laws varied from one another in almost every State. Vastly differing standards of preliminary education and medical attainment characterized the various schools, even in the same State.

On the first of August, 1901, the act for the regulation of the practice of medicine and surgery in the State of California and for the appointment of a board of medical examiners went into effect. Similar laws had been enacted by the various States, and the wisdom and beneficent results of such enactments are attested by a majority of the people. In every State, however, these laws have been attacked as discriminative, unjust and unconstitutional by those interested in commercial and illegitimate medical enterprises. When defeat of the law was found impossible, it was sought to favorably modify or nullify its provisions. In every instance, so far as I am informed, the law has been sustained. In this state a like antagonism from similar sources has been aroused. The parties to this onslaught are chiefly the commercial educator, the semi-respectable incompetent, gentlemen with diplomas and shady reputations, gentlemen without the shadow of either, the mendacious and criminal. These interests have united in secret compact to overthrow the law. It is sought to convert the Board into a political machine and subvert its purpose by the machinations of unscrupulous tricksters. Hucksters of medical diplomas, rejected incompetents, pretenders without qualifications, spurious professors with foreign degrees, and colleges requiring no educational test of matriculants, have formed an unholy alliance to defeat the law. The reason is too obvious to require explanation. A board of examiners, selected by the various State societies with reference to personal qualification, sustained by all reputable colleges striving for higher standards and approved by the great body of medical men everywhere, is the ideal bulwark of legitimate medicine. Its operation under the law is the death knell to the enemies of medical progress. Its inquiries expose the detestable methods of medical commercialism, and State examinations will eventually reform or annihilate those who prostitute medical education for lucre and personal aggrandizement. In the glare of the twentieth century, in the light of the brilliant discoveries and unparalleled progress of medical and kindred sciences, who would oppose this onward march? Who are they who would degrade or asperse the lofty ideals of a profession aspiring to discover the secrets of life, the causes of death, and which seeks to regenerate the world by the gospel of health?

A recent author has well said, "It seems strange, yes, more than strange, that that science which underlies the most important principles, indissolubly associated with man's highest achievements, whether relating to social, commercial or family affiliations, has until the present been permitted by both the profession and the laity to be subjected to the basest abuses of unprincipled commercialism, diseased by absurd 'pathies' and 'isms,' the outgrowth of culpable ignorance and morbid emotionalism, its progressive growth and development seriously retarded by perverted religious fervor and degraded political power, and law prostituted to the low level of affording protection to medical fraud and crime."

The reciprocity of State boards should elicit the earnest and careful consideration of future examining boards. At the present time sixteen States only have provided for reciprocal relations, which number includes California. Dr. Harrison, secretary of the Michigan State Board of Registration and secretary of the American Confederation of Reciprocating, Examining and Licensing Medical Boards, has justly declared that within the past few years, a great many of the States which either had no medical legislation, or a very insufficient medical act, have obtained from their legislatures a more or less effective medical act, and in addition to the prevention of the registration and practice within their borders of incompetents, it has also necessarily, but without purpose, raised a barrier against the holders of reputable and standard qualifications registering and practising in other States, who for one reason or another desire to change their State location, and who, before such legislation was effected, could comply with the laws relative to medical practice. In other words, while the legislation in a number of the States has cut off and given the quietus to a very large and ever increasing supply of incompetent and fraudulent practitioners, it has also cut off to a large, if perhaps to a lesser extent, the supply of experienced and properly qualified practitioners from without States. Therefore the trend of medical legislation has been more favorable to

the recent graduate than to the older and properly qualified practitioner. Any reciprocal legislation which provides for the present and future practitioner, and ignores the older and experienced practitioner, for the reason that he has not obtained his certificate of registration through a State board of examination, is not only incompetent and unjust, but is also unconstitutional legislation. How then are those physicians who have been in practice several years, but who graduated from reputable medical colleges previous to the advance of such colleges to a higher standard, to be provided for? The Confederation of Examining and Licensing Boards, which at the present time includes in membership Indiana, Wisconsin, Illinois and Michigan, have formulated a qualification that covers the requirement. It declares, "That a license or certificate of qualification, issued by a State board of registration or medical examiners of at least one year's date, based upon presentation of a satisfactory diploma and the recommendation of a State board of registration or medical examiners as to the reputability of the applicant, may be accepted at the discretion of a board in lieu of an examination, and as a basis upon which the license of a State may be issued." It will be noted that this is simply the declaration of a policy, leaving it to the discretion of individual boards to adopt a standard of preliminary and medical education.

It is of paramount importance that State boards should unite upon a minimum standard of preliminary and medical education and enter upon reciprocal relations, based upon such standards. Such an affiliation means the raising of the standard of all the colleges in every State affected by the union, and only the recognition of colleges of the highest grade. The evidence is overwhelming that the great mass of the medical profession in this country has determined upon higher standards of medical education.

The M. D. degree—the diploma—means anything, from illiteracy to the highest qualification in medical science. The condition is chaotic—lamentable. Commercialism in its most objectionable forms has seized upon medical education as an avenue to wealth. In every State in the Union medical colleges, good, bad and indifferent, multiplied indefinitely. There was no recognized standard of education for admission to these institutions, and no uniformity of qualification for graduation from them. Education in its broadest sense did not exist. For obvious reasons medical colleges could not be remodeled, and successful reform must be directed against the incompetent yet technical doctor. How was this to be accomplished? By the formation, under State laws, of independent examining boards for all graduates. Happily for the welfare of society and the honor of science, medical opinion aided by an enlightened understanding on the part of the people has established this needed reform in a large number of the States and territories. There may be much to learn in the practical operation of examining boards. Changes may be required, inadequacies may arise, but the object of this great movement on the part of the best men in the profession everywhere will be more or less perfectly accomplished—"to compel the colleges to so modify the scope of study, methods of teaching and practical training as to enable candidates for license to pass State examinations, which will in reality be examinations that actually demonstrate an adequate knowledge and comprehension of the principles of medical science, and the possession of a sufficiently cultivated skill in its art to merit the legal instrument that declares them so to be."

My brief experience as a member of a board of medical examiners leads me to suggest that, taking into account the present inadequate system of medical education, examinations should be limited, as far as practicable, to their applied phases. For example, in physiology and pathology, we should not seek for a scientific mastery in these branches, but rather their limited and practical application to medical and surgical practice. All impracticable and abstract matter should be strictly eliminated. I furthermore suggest that examinations in chemistry should be only so far as that science is applicable to medicine. As I understand it, the great object sought to be accomplished by State examining boards is to maintain a fair but elevated scale of scientific and practical attainment; to establish a harmonious relation and understanding of standards between the teaching and examining branches of education, as to the applied phases of fundamentals and the joint recognition of a curriculum.

In connection with the subject of reciprocity between the States, it may be proper to report that this subject has to be considered in its relation not only to State law, but also with the respective boards; and that up to the present time New Jersey, New York, Pennsylvania, Delaware and the District of Columbia are the only States whose legal requirements are equal to those of California.

The Revised Pharmacopeia—Neither can a pharmacopeia be expected to contain all of the new remedies which are exploited by the various manufacturing firms throughout the world. This ever-changing, never-to-be-suppressed condition imposes on the revision committee a most difficult task of selection. It can only recognize the newer remedies which have stood the test of sufficient time to demonstrate their value, and of late years the *embarras de richesses* has been so pronounced, and one good new remedy has been so rapidly supplanted by something better (if the advertisements of the manufacturers are credited) that the task of the committee has been greatly increased.—*Dr. Redington, Chairman, in Journal of the A. M. A.*

PROSTATIC OBSTRUCTIONS AND THEIR REMOVAL.*

By GRANVILLE MacGOWAN, M. D.

Professor of Diseases of Skin and Genito-Urinary Organs, College of Medicine, University of Southern California.

ORATION ON SURGERY.

To the President and Members,
Medical Society, State of California:—

GENTLEMEN:—When I was asked by our President to write for you an Oration on Surgery, I was rather puzzled to know the character of the address I should make. In response to an inquiry he told me I was at liberty to write upon anything I cared to. I decided to bring before you the advancements along a line of surgery which is to most physicians strange, almost unheard of, and certainly not believed in; by many surgeons looked upon with curious doubt and disbelief; by a few regarded with favor, but not actively pursued; by some enthusiastically recommended without judgment and without conscience; and by a few practised with care, with an endeavor to obtain experience valuable in developing rules of precision for the work of those who may follow them, or for those who have not the means of procuring considerable experience for themselves. I refer to the radical surgery which reopens the vesical outlet closed by encroachment, in whole or in part, of the chronically inflamed prostate gland upon the urethra, which naturally passes through it as a tunnel through a hill. This subject has been close to my heart since 1892, and much of my time has been occupied in its practical development. I could not believe the old-fashioned assertion, "Once a prostatic, always a prostatic." I had no faith in the dictum of the master, Guyon, that all cases of senile prostatic obstruction were sclerotic. I believed that successful methods could be developed for the relief and cure of such sufferers, and there were many other practical surgeons in this wide world, but principally in America, who thought as I did. We have gone on quietly developing this belief and showing our faith by our works, until now, to-day, to you I feel that I may state positively and absolutely, speaking only from the experience of my own operations, which have now numbered close to one hundred, that no man who is prostatic, unless his prostatism is due to cancer, need feel that he has a disease of which he may not be rid, with much less risk to his life than he takes if he refuses the assistance offered to him by the surgeon. Many of these cases can be entirely cured. The tonicity of bladders which have been atonic for years, scarcely possessing enough motor power to force the urine slowly but reluctantly through a catheter to fall without curve at the feet of the individual, have the contractile power of the detrusor so restored in a few weeks, after the removal of the obstruction, that a good sized stream of urine will be projected in a forceful arc a considerable distance from the body. The crippled kidneys, with dilated ureters, pelves and calyces and obstructed and choked urinary tubules, oftentimes the seat of abscesses; secreting too little or too much urine, which always contains albumen in varying amounts and casts, usually pus, and sometimes blood, and always, whether the urine be increased or diminished, secrete a quantity or urea greatly below normal; which perhaps for years have been unable to take care of the poisonous excreta, the separation of which from the blood is their duty, will, when the prostatic obstruction is removed, in a short time begin to functionate properly. The blood, pus and casts disappear; the albumen lessens and often is lost entirely, and the quantity of urea increases. The slow moving and doubtful mind becomes alert, the lagging step quickens, the nauseated and rebellious stomach changes to an eager receptacle for food, the ashy cheek turns pink again, and frequently sexual power held in abeyance for years, almost forgotten, reasserts itself and is restored.

This is not a fancy picture which I have drawn, but one which may be shown to you any day, if you are of an inquiring mind, in any city of considerable size and importance in America.

With the achievements of the past ten years in the surgery of the urinary organs before us, it is very interesting to read the works of those distinguished Englishmen, John Hunter and his student and successor, Everard Home, whose labors and conclusions dominated surgical methods in the treatment of these diseases for nearly a century.

Hunter, speaking of the treatment of the swelled prostate gland, Edition March 30, 1796. Page 174:

> The methods practised in the above cases afforded only temporary relief, but must be had recourse to, to avoid the consequences of retaining the urine too long. As a temporary relief from pain, as also to remove spasm, opiate clysters should be thrown up once or twice a day. A certain cure, I am afraid, is not yet known. In one case in which I was consulted, a surgeon had found burnt sponge reduce the swelling of the gland very considerably. This disease, like stricture, produces complaints in the bladder. I have recommended sea bathing and in some cases received considerable advantage from it, and in two cases a cure of some standing.

Home, in his position as successor to John Hunter, and as curator of the Hunter Museum, had unusual opportunities for study of disease of the prostate. This subject happened to possess great attraction for him and its study gave him great satisfaction. To his imperfect investigations and immense influence we owe the false idea that this gland is lobular, consisting of two lateral and one middle lobe. This great surgeon very narrowly escaped finding the true solution

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

of prostatism. On page 23, Vol. 2, "On the Disease of the Prostate Gland," he says:

The lateral lobes when cut into were found to be made up of nodules like that in the middle lobe. *They were so loosely connected with one another that they might have been separated by dissection.* Their internal structure was in all the same, and like that already described. The projections seen externally were small portions of the outer surface of these nodules pressing against the general covering in which they were all contained.

Had he followed up the train of thought expressed in this paragraph, prostatectomy would have been introduced nearly one hundred years ago. He had thoroughly studied the symptoms of prostatism and he was well aware of the dangers. On pages 31 and 32, Vol. 2, he says:

Upon the present occasion, when treating upon a disease in which the symptoms if not early attended to increase rapidly and prove fatal, it is peculiarly necessary to state all the fatal consequences of delay by showing the mischief that is produced by it.

Instead of seeking a solution of the problem by operative interference, always with the idea that it was the enlarged middle lobe that caused the distressing symptoms, his attention was given entirely to the perfection of the drainage of the bladder in such manner that the congestion of the part would be allayed and the cure, relative or total, of the affected obstruction be obtained. He very properly considered that the diseased condition had nothing whatever to do with any constitutional vice or general depression. Of this he says, page 86, Vol. 2:

I am induced to consider the disease of which I am treating as one that is entirely local, produced by local violence, kept up by local circumstances and having all its symptoms aggravated by a succession of causes of irritation belonging to the natural action of the organs to which the prostate gland is attached, and I am sorry to say that the disease has not only its progress increased, but unnecessarily produced by the unskillful use of the instruments employed for its relief, and has been too often the means of putting an end to the patient's life, which, had the case been differently treated, there is every reason to believe, by reference to the other cases, might have been preserved for many years.

He was the originator of prolonged drainage for the relief of retention and cystitis due to an enlarged prostate. He was fortunate in discovering the original Weisse, who manufactured for him elastic catheters of high grade, which could be retained in the bladder for weeks, and he sometimes retained the catheter for so long as from one to three months, until the bladder would for a time regain the power of emptying itself. He was firm in his belief that these cases seen at the right time, and treated by drainage in this way, became entirely well, for he says:

As cases of the disease do not always come under our care in the earlier stage, it frequently happens that too much has been done and the parts too much injured to admit of the recovery of the patient. Were it otherwise, I am very sanguine in my opinion that most of them might get well.

The precepts of Home were dominant for more than fifty years, and surgeons and physicians looked upon the enlargement of the prostate gland as a trouble which could not be removed by operative measures. This was further strengthened by the dictum of Guyon, who with his powerful Necker school, for many decades has moulded surgical opinion upon this subject in France, and through those educated in the French universities much of the opinion of the world. It was not comprehended that the problem presented was peculiarly a mechanical one, that prostatism consists solely of the obstruction caused by the encroachment of growths arising from the abnormal development of the glandular, fibrous or muscular structures contained within the capsule of this organ pressing upon the urethral tunnel, upon the internal urinary meatus, or upon the muscular tissue of the bladder wall, interfering by pressure with its inervation or with its contractile rhythm.

In addition to this, a variety of other reasons held the knife in check—the fear of hemorrhage which could not be controlled by reason of the depth at which the vessels were situated; the terrors of vesical tenasmus; the fear of contamination of the wound by the urine discharged upon it; and, before the age of aseptic surgery, the fear of urinary infiltration and gangrene, bound the surgeon to the doctrines of Home and Guyon.

Tentative and careful were the first bold spirits who planned the intentional removal of prostatic obstruction. From time to time, in operating for stone or for tumor of the bladder, a projecting and obstructing prostatic prominence had been removed with its covering of bladder mucous membrane by snare or ligature and scissors, but I think the first deliberately planned and executed prostatectomy was done by William Bellfield of Chicago, in 1886. Since then numerous workers in various parts of the world have developed various methods for attacking and removing prostatic obstructions, only two of which are worthy of attention.

Either the obstructing portions of the gland are shelled out or excochliated through an incision made into the membranous or prostatic urethra from the perineum, or they are removed through a cut made through the belly wall and anterior wall of the bladder.

The instruments necessary for the perineal route are very few. A sharp bistouary to sever the skin and perineal muscles; a sharp lithotomy knife to enter the urethra; a staff (full curved by preference); a probe pointed, narrow gorget to enter the incision made in the membranous urethra and pass on to the bladder; a Blizzard knife and a pair of uterine dilators to enlarge the incision; a long-handled, blunt capsule knife or a pair of forceps, to open the capsule of the prostate; two or three long-pointed curved tenaculi, to pull the loosened tumors down and prevent them from slipping into the bladder while being

enucleated; a narrow packer, to introduce a gauze trailer along the finger into the capsule of the prostate to still the hemorrhage; a short metallic tube, No. 36 F evacuating, with a very large eye on the upper surface, almost at its end, so that it cannot become obstructed by clots, or if it does, so that a Chismore evacuating bulb can be attached to pump them out, and a strong, long-handled rongeur are what I make use of. In many cases one may get along with a knife and a staff, if he is inclined to operate for show, or in the same spirit which prompts the ship carpenter to build a boat with an adze. All of the various devices which have been introduced for the pulling down of the neck of the bladder or the prostate, such as the rubber retractor of Simms or the metallic ones of Ferguson and others may be easily dispensed with, as they do not facilitate the operative work, but rather impede it.

The position of the patient advocated by George E. Goodfellow of San Francisco and Tucson, of extreme flexion of the thighs upon the abdomen, and the legs upon the thighs, is of much greater importance and assistance than all of these devices. There are very few cases which may not be successfully operated through a simple median perineal incision carried through the skin and the perineal muscles from the scrotal junction to a point about one-half inch in front of the anus, care being taken not to sever the anal sphincter. Exceptionally, a prerectal or inverted Y incision may be necessary. My experience, however, with it has not been satisfactory. In three cases in which I used it, and in three others operated in Chicago, and which afterward came under my care, the scars left were painful for many months. One of my own cases required a secondary operation for relief of the pain and the obstruction to the urethra caused by the contraction of the scars.

For the removal of the prostate by a suprapubic cut, precautions are necessary to keep out of the abdominal cavity and to avoid disturbing the cellular tissues in the space of Retzius. The first is best secured by placing the patient in the full Trendelenberg position after cutting through the skin and abdominal muscles. The second is accomplished by sewing the anterior bladder wall tightly up to the transversalis facia by a few catgut stitches just before or immediately after opening the bladder. This effectually cuts off the space underneath the symphysis from injury and infection. The sides of the cut in the bladder should be secured to the recti muscles by two or three silk or silkworm gut ligatures on each side. The time thus occupied is well spent, for it avoids much trouble after operation. The bladder being thus secured, the prostatic outgrowths are sought for with the finger, the capsule is opened, and they are enucleated, if possible through an incision made through the bladder neck centrally or laterally, as the case may demand.

For this purpose it is better to use some sort of blunt instrument which will tear more than cut, as the hemorrhage is less. These tumors are sometimes so dense and adherent that they cannot be removed by enucleation. They must then be removed piecemeal with rongeurs or serrated scissors and long tissue forceps, the index finger of the left hand being used as a guide for the amount of tissue to be removed and the force necessary to remove it. This is very tedious and sometimes a very bloody procedure, but withal one that gives very satisfactory results.

When I use sectio-alta for prostatectomy, I nearly always make a median perineal incision to utilize for counter-pressure, and if this is not done I obtain the necessary support from the hand of an assistant within the rectum. I drain these cases always with the DePezzer tubes. The instruments required for the operation are a knife; a half-dozen pairs of artery forceps, which should be smooth-grooved, so as not to tear the bladder; some well curved needles, both round pointed and sharp pointed; a pair of blunt pointed or serrated scissors; two or three pairs of long-handled and strong-jawed rongeurs; a staff for the perineal incision, if it is made, and one or two DePezzer suprapubic drainage tubes.

In considering the advisability of the doing of a radical operation in cases of difficult or impossible natural micturation, caused by enlarged prostate, it is well to be conservative, without being unduly so. I have heard it stated by some operators, and read in the writings of others, that the proper time to enucleate an enlarging prostate, or do a Bottini operation upon it, is when the irritation phenomena which usher in prostatism—increased urinary frequency, pelvic burning and straining—associated with the evidences demonstrable to the finger in the rectum, with perhaps the presence of a little pus, or from time to time a few red corpuscles in the urine, are first noticed. With this I cannot agree, for by proper medical aid, which includes careful hygienic measures, the evil hour of operation may be put off quite a number of years without great detriment to the prostatic. But when once the trouble becomes so great that the treacherous existence of a catheter life is forced upon the person operation should be urged, because then a new and continuous element of danger is ever present—I mean the constant threat of septic poisoning from unclean materials carried in by the catheter. However particular the individual may be, it is not possible for him at all times to be either gentle with the introduction of the instrument or clean with the lubricant or his immediate person. He is day by day, even hour by hour, risking his existence upon a gamble that he will not infect himself, and

he had far better take the small chance of death necessary to obtain a radical cure by operation.

The remark is often made to me by medical men that it is useless to think of relieving certain people by operation for enlarged prostate because they are too old. No one is too old for these operations. I have done a successful Bottini upon a man of ninety, bent nearly double, and I have known successful prostatectomies to be done upon several genlemen who were more than eighty. The statements often come from the same source, "He cannot be helped, for his urine is full of albumen and contains casts" or, "He has stone in the bladder, and you can't do both operations at once." "It will take too long," or "He can't stand the two operations; he is too weak." While carefully noting these factors I do not let them influence me. You have to operate these people as you find them and not in the condition you would like to have them. If they were in good shape they might not need an operation, and unless they were inoculated with what might be termed operative fever, they would most probably not consent to one.

The presence of pus, of blood, of albumen in limited quantities, of casts of any kind, excepting amyloid, are not contra-indications for the doing of either prostatectomy or prostatotomy. Nor does extreme age, long sickness, feebleness within reasonable limits, or septic symptoms such as nausea or hiccough, prohibit surgical interference. There are just three contra-indications to which I pay attention: First, a tendency to bleed freely from very slight injuries; second, the existence of serious heart lesions accompanied by a great general muscular feebleness; third, and most important, is the inability of the kidneys to secrete a reasonable quantity of urea, and what I consider a reasonable quantity in these cases is from 15 to 25 grammes per day. In a number of the cases which got well for me after operation, the daily quantity of urea for weeks had not exceeded 15 to 20 grammes per day. This outcome seems really wonderful, when the severity of the operation and the loss of a quantity of blood, which is always very considerable, when proportioned to the age and strength of the individual, is taken account of.

I do not know what considerations control other operators in the selection of their cases. I take mine as they come, doing a perineal or suprapubic excochleation, or both, or the Bottini operation, as my judgment dictates for the particular case. I never refuse to make the attempt to relieve the sufferings on one of these miserable wretches, no matter how bad his condition may be, if his kidneys work in such a manner that I believe with care they may be kept from striking on him during his recovery from the surgical injuries necessarily inflicted in the attempt to remove the cause of his condition. Some have come to operation with me that a surgeon desirous of having entirely favorable statistics might have refused to operate.

One need not be so discouraged as not to attempt to relieve the patient unless the individual is one of the three clases which I have designated as unfavorable. If the percentage of urea runs so low that any decided hemorrhage is very dangerous, or if the person is so feeble that it is risky to confine him to bed for a few days, or if he has a bad pyelitus, it is better to do a Bottini operation and chance his being in a better condition later for a prostatectomy if the Bottini operation does not give him permanent relief. I have had occasion to enucleate the prostates of three persons upon whom I had done Bottini operations, which gave very excellent relief for a time, varying from one to two years, and speak positively when I say that the scars left by the Bottini do not in any way seriously interfere with the subsequent enucleation of the tumors. The scars are soft and pliable, quite contrary to the teachings of certain urologists who have had no personal experience with them.

When it is known that the obstruction is cancerous enucleation should not be attempted, for such cases usually succumb to primary or secondary hemorrhage. An exception was one of my cases, an enormous spindle-celled sarcoma weighing about two pounds, which included all the prostatic substance, but not its capsule, and which had not invaded the urethra, but had attacked the anterior wall of the rectum, was successfully removed by enucleation through an aperture made in the anterior wall of the rectum, with primary recovery, and no recurrence up to the time of death from other causes, four years afterward.

If, when the urethra is opened, cancerous structure is recognized by the fingers or eye, a prostatotomy made with the apparatus of Young, Freudenberg or Chetwood by the Bottini method offers the only relief to the sufferer, for if the burns are made slowly, with the ampere meter registering not less than 45 nor more than 50 amperes, it will make a wound which will not bleed and will heal perfectly. If the enlargement is very dense and cement-like, and when the capsule is slit the tumors enucleate with great difficulty or not at all, I believe it is better to attempt the relief of the patient by a Bottini operation done with the parts in sight, than it is to channel a ragged and uncertain groove through the obstruction with rongeur and scissors.

Some operators teach that all prostatectomies should be done by sectio-alta, and some claim that the suprapubic cut is never necessary; that all obstructions may be removed through an incision in the perineum. Neither is right in his contention. It is true that however peculiar and irregular the shape of the encroachment of these

tumors on the urethra and bladder may be, provided they are not fibroid or myomatous, when skill is acquired in enucleation, by the aid of hooked retractors or stout tenaculi, nearly all may be brought down through a median perineal incision and delivered without entering the bladder. If the bladder must be entered, it is better to do so by cutting directly through the neck posteriorly by the backward cut, originally proposed by Harrison, as a cure for prostatism. By this means the finger can, in most instances, be easily passed into the bladder and swept over its posterior and lateral surfaces, feeling for isolated protuberances, large or small, beneath the mucous membrane, sometimes unconnected and sometimes connected with the body of the prostate. Such tumors can often be opened with a long-handled capsule knife with the finger as a guide, enucleated and delivered.

I have seen a few cases where the enlargement sprung out from one side of the prostate high up, projecting into the bladder without coming in contact with its base, hanging down into the urethral mouth from the top wall, so to speak, and acting when the bladder was full like a ball valve, exactly as the so-called middle lobe is supposed to act. I have met small adenoid nodules set in an inflammatory cement directly around the bladder mouth, pouting into the mucous membrane just enough to stop it up, and if one removes a mass as large as a fist, and leaves such little fellows, which are the real obstructing portions, undisturbed, the operation will either be wholly or partially unsuccessful.

Again, the tumors projecting into the bladder may be fibroid, and after the adenoid nodules from about the prostatic urethra have been removed, it is found that no impression upon the obstructions beyond the bladder neck by an attempt to excochleate can be made. Sometimes on entering the prostatic urethra and commencing to enucleate, a dense fibroid or myomatous growth through which a channel can only be cut with the rongeur is found. In all such cases it is necessary to open the bladder suprapubically for the removal of the obstructions.

I confess the greater my experience the more it troubles me to add this extra cut. In such prostatics the bladder is usually very foul, and the belly wound becomes easily infected. As great speed in the doing of these operations should be used as is consistent with thoroughness, and this will vary with the operator. The one operating must know how much or how little is necessary to do. Speed in operating may prove to be very delusive. I know one operator whose speed is said to be remarkable, but he has never had an approximately perfect result.

If the cystoscope can be introduced into the bladder before operation and projecting nodules of considerable size can be seen upon the superior portion of the lateral quadrants or the superior quadrant, or springing from the prostate on one side far away from the bladder neck, I prefer always to make the suprapubic cut for removal of the obstructions, making the perineal cut afterwards, if upon examination it appears to be necessary. The after-treatment of these cases is generally easy enough if you have a skilled nurse, otherwise it becomes a subject which is often disagreeable and unusually burdensome, onerous and time-absorbing for the surgeon.

If the work for the removal of the obstruction can be done without disturbing or breaking through the outer capsule of the prostate or tearing the neck of the bladder, the immediate hemorrhage is not alarming; but when compared with other surgical operations, with the exception of those about the face, the hemorrhage is always quite considerable, and sometimes where the arteries are sclerotic, or some of the large veins of the capsule are opened, it is severe and not always easy to control. The best method of doing this is to use hot water to 120 degrees, the tissues of the perineum, buttocks and scrotum being protected by sterilized vaseline. If this does not suffice, the wound can be slightly packed with gauze, moistened in a solution 1-1000 of adrenalin chloride passed in along the finger and carried up inside the capsule on each side.

Some operators do not drain, declaring it to be unnecessary. If the urine be clear and sweet its contact can never do any harm to the perineal wound unless the raw surface extends beyond the tissue of the capsule of the prostate. When the urine is alkaline, or rather ammoniacal, and the bladder has contained calculi or incrustations upon ulcerated bosses of the prostate, or where there is fear of hemorrhage, it is much better, I believe, to drain. For this purpose, I at first used Watson's perineal drainage tubes but they are too short to fit all perineums, are not very comfortable and are expensive. I then used the Tiemann soft rubber perineal tube which has a double eye, one at the end the other on the upper surface near the end, having them made in calibers from 30 to 40 F. These do not readily become plugged, but should there be a late copius hemorrhage into the bladder at the end of 24 or 48 hours, filling this viscus with clots, the tube is useless to assist in their evacuation. Two experiences of this kind led me to adopt the tube I use at present which is a metallic one 18½ cm. long, the caliber 36 F. with a large smooth eye 2 cm. long by 1 cm. wide situated near its rounded end. It is really a short evacuating tube and is made to fit the Chismore evacuator, with which attached, the bladder may be easily emptied of clots, no matter how copious the hemorrhage has been. It is worn with great comfort, does not cause tenesmus, and is usually removed at the end of the fourth day with the packing. I think

it is a very valuable devise for perineal drainage after bloody operations upon the bladder or prostate and can recommend its use to others. It is securely held in place by tapes tied back of the winged flange and fastened with safety pins to a broad band about the waist, two in front and two at the back. Continuous drainage is provided for by a piece of large-sized drainage tube attached to the metal tube and connected by a glass reduction tube to six feet of quarter-inch caliber rubber tubing which emerges from the foot of the bed and ends in a graduated bottle on the floor. This tube is so arranged with safety pins that the patient can move freely in bed without disturbing the tube in the bladder. If further drainage is required, use is made of the Tiemann perineal tubes, their caliber being reduced gradually to 20 F.

The patient's bowels are moved freely at the end of the first twenty-four hours, and afterward once daily, using such laxatives as are not disagreeable to the individual. After removal of the packing the deeper parts of the wound are not repacked, but the superficial parts are slightly stuffed with gauze, to prevent contamination with fecal matter.

During the first twenty-four hours 10 minims of the solution of adrenalin chloride 1-1000 are given every two hours hypodermatically as a hemostatic agent and cardiac stimulant, and usually 1-30 grain of strychnia at the same time. After the first day the medicines are continued at longer intervals when necessary. When the hemorrhage came directly from the bladder, I have several times succeeded in stopping it by the injection of an ounce of the solution of adrenalin chloride 1-5000. In all of my important operations upon the urinary tract for the last eight years, I have had two quarts of normal salt solution given by hypodermoclysis while the patient is on the table under the anesthetic, and this is repeated every three hours after he leaves the table until the drainage tubes show a free secretion of urine. In all this time I have never lost an operative case from suppression of urine or uremia.

I have operated forty-nine individuals ranging in ages from 49 to 80 years, for enlarged prostate with retention and catheter life. by what is known as total prostatectomy, which, of course, does not mean the removal of the organ. for this is not possible, excepting it be thoroughly ripe, when it can be stripped off the urethra like a bead off its string, as in the cases reported by Gibson and Paul Thorndyke. Prostatectomy means rather the removal of such tumors as can be shelled out or it be necessary to cut out, in order to clear the channel for the free passage of the urine. Twenty-eight of these were perineal operations, twenty-one were suprapubic. Of those operated upon through the perineum there were four who died. Two of these, the youngest, were aged 47 and 49, and had had carcinoma of the prostate. One of these had also an impassable stricture, requiring perineal section without a guide. The prostate was known to be enlarged, but was not believed to be obstructive, until an attempt was made to enter the bladder with the finger through the membranous urethra—the hard nodules, four in number, felt fibroid and were removed. The individual died from secondary hemorrhage on the fourteenth day. He was an alcoholic and had not passed any water for three days when he came into my hands. The man of 49 was a poor farmer, who had led a catheter life for three years. There was increasing difficulty in the passage of the instrument until its introduction became almost impossible. The prostatic prominences felt smooth, but were dense and rather difficult to excochleate. They did not look cancerous nor feel distinctly so, but proved to be carcinomatous upon microscopic examination. This man died within twenty-four hours from loss of blood. The third had fibrous stricture of the entire urethra complicated by cancer of the prostate. This was recognized as cancerous, but there was an obstructing nodule which could not be removed by the Bottini and it was cut away as a palliative measure of last resort. He died from secondary hemorrhage. The fourth was a large, fat, asthmatic of 73, with an enormous prostate. Operation was required to relieve him of atrocious suffering of long duration. He contracted the grippe on the fifth day, and died of cardiac failure from non-septic pneumonia on the ninth day, when his prostate wound was nearly healed. Of the suprapubic cases my first, a man of 60, was complicated by stone and an impassable stricture and died on the third day of uremia. This was before I commenced to use normal salt solutions by hypodermoclysis in my operations. My third case, a poor and ignorant Mexican, 74 years old, commenced to urinate naturally and left the hospital before his wound was thoroughly healed. He was careless and got fly-blown. He returned to the hospital three weeks after he had left, the whole pelvis filled with maggots which had eaten through the cartilage of the symphysis, causing separation of the bones. He died in a few days. The next fatal case was that of a man upon whom I had done a Bottini operation for a pear-shaped median intervesical projection. My assistant had turned on too great an amperage and the platinum knife being too hot it did not close the blood vessels. The result was a profuse hemorrhage within an hour, to which my attention was called by the ward nurse after I had finished a prostatectomy upon another man. His bladder was opened suprapubically and no cut or tear I made in the operation stopped bleeding till he died in a few hours. Two years ago a patient

upon whom I had done a combined prostatectomy died on the seventeenth day. His suprapubic wound was almost healed and he was urinating naturally. He had not had a single adverse symptom; he had been sitting up in bed talking pleasantly to his nurse and a relative, making plans for the future, when he put his hand to his heart with a sudden cry of pain and was dead before they could assist him, probably from embolism. No post mortem was allowed.

In 1902 I operated a man of 68 who had been ailing for many years with a stone in the bladder and a very tight stricture, together with an enlarged prostate. He had had a number of severe hemorrhages caused by the stone, which was a very rough one, and was much exhausted. He had a great terror of operations, and it was only when he was very sure that he would die that he consented to be operated upon, to satisfy his wife and his children. He refused to take proper nourishment, or could not take it, I do not know which, and died of exhaustion about ten days after operation.

To those who calculate by percentage alone, this list of nine deaths may seem a high one; but in all of these cases but two a painful death was certainly known to be rapidly approaching, and the operation should in no way be charged with the death. In the case of the farmer of 49 with cancer, if I had suspected the nature of the diseases before operation, I should have done a Bottini upon him, or have established suprapubic drainage with a DePezzer or Senn drainage tube, and thus have prolonged his life. With the case of hemophilia the death is hardly chargeable to prostatectomy, but rather to the carelessness of a hospital assistant in not watching the amperage of the current used to heat the blade in the preceding Bottini operation, for the pear-shaped nodule with its pedicle was cut in half as beautifully as if done with a knife. I do not know that the man who was supposed to have died from an embolus did so at all, but his prostate had been removed seventeen days before and he had not left the hospital, for his wounds were not entirely healed. He died suddenly, and death may have been caused by the operation. The maggot case was clearly criminal neglect on the part of himself and his relations in removing him from the hospital. Deducting these five cases from the total of 49 we have four deaths in 44 cases, which is 9½ per cent, including two cases which in the light of my experience I should never have operated except by the Bottini method.

From reading the text on almost any modern work on general surgery the average physician might readily conclude that these operations are very uncertain in their results and very dangerous. This represents ultra-conservatism, the disagreeable point of view which always tends to retard the advancement of good work in surgery. And then again, after reading the articles published by certain operators who have no deaths, and whose cases are always thoroughly healed and recover the voluntary power of urination in eighteen or twenty days, grave suspicions that the reports are doctored to gain a desired reputation for extraordinary skill are more than likely to be entertained. The former make the operation too difficult to attract the ordinary surgeon, the latter make it appear so easy and so certain in its results that it must inevitably cause great damage and loss of life by its being entered into very lightly by many who are incompetent to perform it properly or take good care afterward of those operated. No one operation is suitable to all cases, and the ultimate results which are very excellent in the majority are sometimes far from being perfect. Performed as they are upon old men whose bladders are diseased and misshapen, whose urethras are often the seat of tight strictures and whose kidneys act very imperfectly, whose nutrition is poor, and who too frequently are the subject of the diseases of the other vital organs, the wonder is, not that we do not always obtain perfect success, but that we ever do so; and not that we sometimes lose a man from operation, but that any ever get well.

The coast is well charted and it is not necessary for us to be wrecked upon the known reefs or point of rocks that may be seen. A death from uremia, where proper precautions have been taken before, during and after the operation, is entirely unnecessary. Death from purulent infiltrations of the abdominal wall or the perineum is also easily prevented. But the perils of secondary hemorrhage, of thrombosis, of testicular abscess, of multiple abscesses of the kidney, or of the imperfect removal of the obstruction by perineal operation, are things which cannot always very well be provided against.

(*To be continued.*)

With Eminent Fairness—We of Southern California are especially pleased with our President and with the election of Dr. L. S. Thorpe on the Board of Examiners. We all know that Dr. Thorpe will be able, fair and painstaking in the performance of his duties. We are glad also to see Dr. J. G. Baird of Riverside and Dr. F. C. E. Mattison of Pasadena on the Board of Trustees, and Dr. F. M. Pottenger as alternate on the Board of Examiners. The State Society always treats Southern California with eminent fairness, and we believe it is not assuming too much for us to say that Southern California, in proportion to her population, does her full share toward maintaining the high standard of the work of the Society.—*Southern California Practitioner.*

A FEW REMARKS ON GASTRIC SURGERY.*

By DUDLEY TAIT, M. D., San Francisco.

WHEN we consider the constant increase in the number and variety of gastric surgical interventions during the past five years, and that the list of operative indications now invades farther and farther the heretofore prohibited medical domain, it may not be amiss to halt an instant, scan some of the methods employed, and estimate the amount of benefit accruing from this operative furor.

Perhaps, in the opinion of the great majority of surgeons, posterior gastro-enterostomy (von Hacker's operation) constitutes the most popular of abdominal interventions. It is generally considered the most plausible, facile and beneficial procedure, the operation of choice in three-fourths of gastric surgical conditions. Nevertheless, experienced surgeons are of late performing fewer gastro-enterostomies, and their mortality in this operation is higher than formerly. Why this change of attitude? Let us first consider malignant cases.

Here, gastro-enterostomy is being rapidly superseded by pylorectomy and gastrectomy, which afford better immediate and late results. No one who has followed attentively a successful case of gastrectomy can fail to note a radical change in the patient's condition, contrasting strikingly with the result of the palliative procedure of short circuiting. Furthermore, the average survival is greater in pylorectomy than in gastro-enterostomy.

Krönlein reports an average survival of thirteen months, Hartmann twelve months and a half, Mickulicz and Mayo twelve months; whereas, in gastro-enterostomy the survival averages four months. In many cases recurrence after gastrectomy has taken place as late as the third and fourth year. Mortality in gastro-enterostomy has gravitated from sixty to thirteen per cent (Terrier and Hartmann). At the last German Surgical Congress the average given was nineteen per cent.

I wish to remark parenthetically that a few months ago, during a meeting of the San Francisco County Medical Society, statistics were quoted giving Witzel a mortality of one per cent. After a thorough search of Witzel's published cases I failed to verify this statement. Hence an investigation on my part while in Bonn, at Witzel's hospital, last March. A slight error had been made. The one per cent should have been multiplied by 20. Pardon me for interjecting this remark. We ought to be better acquainted in San Francisco with foreign bibliography, as our medical library is submerged with German periodicals; but unfortunately the majority of them are never read or even opened, for the pages remain uncut.

Two years ago Terrier and Hartmann reported a mortality of thirteen per cent in gastro-enterostomy; since then their mortality has increased. The Mayo brothers report a similar increase in mortality. Perhaps the most logical explanation of this apparently paradoxical statement is to be found in the corresponding increase in the number of pylorectomies and gastrectomies, the palliative procedure being reserved for extreme cases.

In benign affections, gastro-enterostomy has almost run riot. Every stomach condition known to the internalist, neurologist, or surgeon, has been subjected to an anastomosis. The complaisant medical confrere has willingly and conscienciously committed to the surgeon's care scores of acute and chronic gastric and intestinal affections and waited patiently for the promised miracle. What has been the result? To one who will take the necessary time to visit the wards of several important surgical centers, the answer is quite obvious: Neither the surgeon nor the physician is truly satisfied; an increasing percentage of recurrences confronts both.

These unsatisfactory results, I believe, may be ascribed to one of two causes, frequently to both: First, faulty diagnosis, as so frequently illustrated in atonic dilatation or in neurasthenic conditions, two classes which play no small part in the clientele of this country. Second, faulty operative procedures.

For the past three years the French school, with Terrier and Hartmann of Paris, Roux and Bourget of Lausanne, has made it an invariable rule to study most completely, in every case, the gastric contents and functions prior and subsequent to operation. Consequently, in reading the post-operative reports from these clinics, few complications will be noticed; recurrences of perforating ulcers, hyperchlorydria, dilatation or stasis are seldom seen. The neurasthenics and simple dilatation cases never leave the medical wards. It were difficult to find a more forcible instance of the utility of the coöperation of the physician and surgeon than in this class of obscure cases; and this assertion loses none of its force when applied to the expert in laboratory methods, whose field of usefulness some Eastern authorities, with sentimental or literary arguments, persist in ignoring or belittling.

In regard to the second factor—faulty operative procedures—several facts of great value have been recently brought to light. The time-honored von Hacker anastomosis, posterior trans-mesocolic gastro-enterostomy, is undergoing an attack from numerous sides. Volumes have been written on the cause and prevention of vicious circle following gastro-enterostomy; many have commented on the complications attending the contraction of the opening in the mesocolon; others have shown that the gastric opening is generally too high on the posterior wall and not in the most dependent portion of the stomach; recurring perforating ulcers, after gastro-enterostomy have been reported by Heidenhaim, Goepel, Hahn, Quénu, Routier and others. But, most important of all, a marked contraction of the anastomotic opening, amounting to almost complete obliteration, has been found in numerous cases. The brilliant and clever Mayo brothers

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

have carefully investigated the gastric conditions in a series of their own cases presenting a recurrence of symptoms after gastro-enterostomy by means of the Murphy button.

In several cases operated for non-stenotic conditions they found, upon reoperation, a marked contraction of the anastomotic opening, and forthwith excised the entire area, closing the gastric and intestinal surfaces and making a modified pyloroplastic operation. Finney of Baltimore reports similar findings. The explanation suggested by Mayo is as follows: If, in a non-stenosed case, a second outlet is made by gastro-enterostomy, the stomach is thereby provided, from a physiological standpoint, with one superfluous outlet which must inevitably disappear. Hence the rapid closure of the new opening. In order to substantiate these views Mayo recently made a series of operative tests: First, pyloric excision; second, exclusion; third, closure of the pylorus with silver wire, a gastro-enterostomy being done in each case. It is too early to draw conclusions from any of these experiments. I would suggest the propriety of obtaining the converse proof by demonstrating the presence of contraction in the common cases presenting pyloric stenosis at the primary operation and subsequently showing a pervious pylorus.

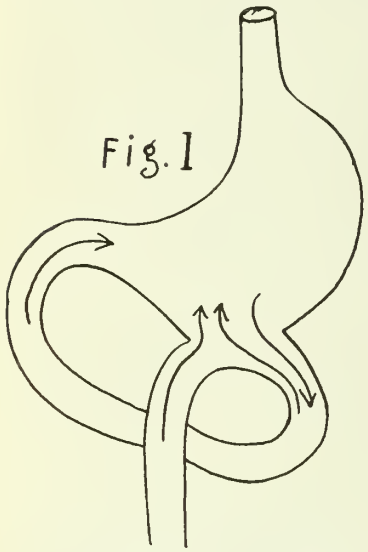
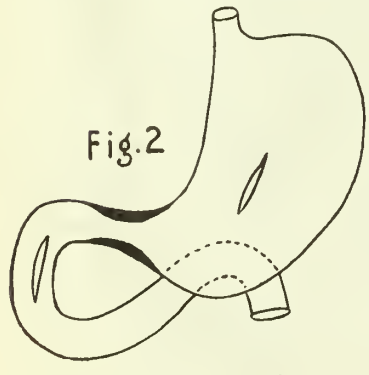


Diagram showing the four different modes of reflux.

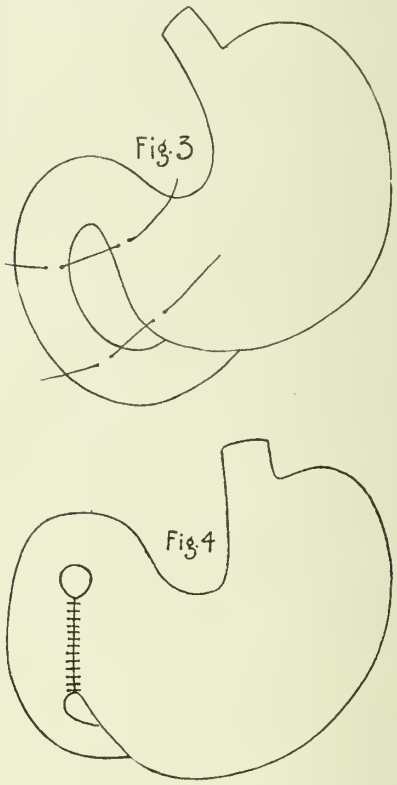
Dissatisfaction with the usual methods in benign gastric affections has, within the past eighteen months, caused the adoption of simpler and more direct methods of anastomosis, the two principal types of which are lateral (subpyloric) gastro-duodenostomy and its modification by Finney, who very cleverly combined the Heinecke-Mikulicz pyloroplasty with gastro-duodenostomy.



Jaboulay's anastomosis.

Proposed and first utilized in 1897 by Villard of Bordeaux, lateral gastro-duodenostomy was derived from an operation performed by Jaboulay in which a fold of the anterior wall of the stomach near the greater curvature was anastomosed with the second portion of the duodenum. Villard chose the pre-pyloric portion of the stomach, *either on the anterior or posterior wall*, descending more or less toward or drawing upwards the greater curvature, according to the degree of dilatation of the stomach.

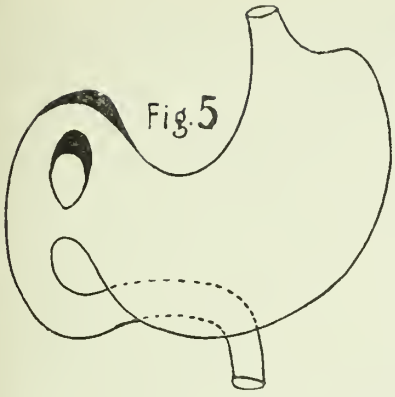
With the anastomotic opening at this point of the duodenum, the surgeon is no longer confronted with the dangers of vicious circle or hypo-acidity and retarded digestion due to the reflow of bile or pancreatic juice into the stomach; and, although drainage from a more dependent part were apparently more logical, Terrier proved that in the



Upper and lower approximation sutures in Villard's operation.

majority of cases the stomach contracts to its normal size subsequent to anastomosis. While in Berne recently I noted a pronounced enthusiasm for lateral gastro-duodenostomy which the eminent Kocher had at that time performed six times (one malignant, five benign cases). Furthermore, in a recent article of the *Centralblatt*, Kocher makes a strong plea for this procedure to which he attempts to attach his own name, and describes a very practical addition to the original operation of Villard, thereby widening its sphere of usefulness.

He liberates the second portion of the duodenum from its lateral and posterior peritoneal attachment by incising vertically the thin layer of parietal peritoneum to the right of and parallel to the descend-



Result Villard operation pyloric-obstruction.

ing portion of the duodenum, anterior to the right kidney and to the left of the descending part of the flexure of the colon. This peritoneal layer forms the uppersheet of the transverse meso-colon. The second portion of the duodenum can then be lifted and detached from the anterior surface of the spine, vena cava and aorta. The lower flexure of the duodenum can also be mobilized in the same way by splitting the peritoneum, passing down to the colon. These maneuvers mobilize the vertical portion of the duodenum to such an extent that it can be readily laid against the anterior surface of the pyloric portion of the stomach. The technical difficulties of the original method are thus reduced to a minimum, and, in most instances, the subsequent work can be done with ease and accuracy outside the abdominal cavity. Finney of Baltimore has also liberated the second portion of the duodenum in a series of pyloroplasties.

Lateral gastro-duodenostomy, I believe, will not replace von Hacker's posterior gastro-enterostomy, nor will it supplant the Finney operation. It is entitled, however, to a position of prominence between the two.

Surgeons are prone to forget the role of the French school in the creation of the cardinal principles governing intestinal surgery, the sero-serous approximation as formulated by Jobert de Lamballe, the non-perforating stitch as advocated by Lembert and lateral anastomosis for which we are indebted to Maisonneuve. Hence my reference to lateral gastro-duodenostomy as "Villard's operation."

REFERENCES.

Péan. In thesis by Danger, p. 66, Paris, 1894. First reported case of gastro-duodenostomy on the third portion of the duodenum.
Jaboulay. *Archives provin. de Chir.* 1892, p. 551. *Lyon Méd.*, 1894, p. 414.
Tixier. *Lyon Méd.*, April 28, 1895.
Villard. *Province Médicale*, 1897. *Semaine Méd.*, 1897.
Henle. *Central f. Chir.* 1898, p. 753, citing case by Mickulicz.
Grollier. Thesis, Lyons, July 10, 1900.
Villard. *Revue de Chir*, Paris, Oct. 10, 1900.
Gouillioud, Vallas, etc. In discussion, *Bull. soc. de chir. de Lyon.* 1900, p. 100.
Kocher. *Central f. Chir.* Feb. 1903.

REPORTS OF MEDICAL SOCIETY MEETINGS.

HUMBOLDT COUNTY MEDICAL SOCIETY.

APRIL MEETING.

Society met April 14th at Eureka, Dr. R. Felt in the chair.

Paper was read by Dr. G. N. Drysdale of Eureka, on "The Difficulties Encountered by the Surgeon Operating in Isolated Country Districts." The greatest difficulties were due to the impossibility of getting trained nurses and assistants, and in the absence of them, the surgeon had to do the work of the nurse himself. In preparing for an operation the ordinary nurse or women of the family had no idea of surgical cleanliness and the surgeon had to make all the preparations himself or be on hand to superintend. At the operation the surgeon had to give his attention not only to the operation, but to the anesthetist and assistants. After the operation the surgeon had to care for all instruments, etc., himself, and in a serious case he had to attend to the nursing of the patient himself. If he did not, he would find that the sympathizing nurse or friends of the patient would give him whatever he called for, and would probably neglect to give him what he should have. As an illustration the doctor gave an account of a case when he was called upon to do a vaginal hysterectomy while practising in the country. He had as an anesthetist a dentist who knew very little about anesthetics; as first assistant he had another doctor of the place, and as second assistant a barber, selected because he was naturally clean and would do as he was told. There was no nurse and he had to take charge of the nursing until the patient had recovered sufficiently to be left with her friends. In most cases, if the surgeon attended to the detail work himself, good results could be had, but it meant a sacrifice of too much time and the fees would not compensate him.

The discussion following was taken part in by Drs. Wallace, McLaren, Felt, McKibbon, Kime, C. O. Falk and Sinclair.

MAY MEETING.

Meeting held in Eureka May 12th. Dr. T. L. Loofbourrow presiding in the absence of Dr. Felt.

At this meeting the report of Dr. McLaren, delegate to the State Society meeting, was heard. Dr. McLaren thought from opinions of members he had talked with at the State meeting, that it would be possible to get the 1905 meeting of the State Society for Eureka. It was the opinion of the society that Eureka could accommodate and entertain the members of the State Society as well as any town in the State, and that the members of the profession in Humboldt should work for the 1905 meeting.

Dr. H. S. Delamere reported a case when death of the fetus at the eighth month occurred in two consecutive pregnancies in a woman who had previously borne healthy children. He had made a diagnosis of syphilis transmitted by the father, the mother never having been infected. From reports he had heard he thought it probable the father had become infected after the birth of the healthy children, but he was never a patient of the doctor's and this diagnosis had to be made from the evidence presented in the fetus and placenta. The case was discussed by Drs. McLaren, Wallace, Sinclair, Chas. Falk, Drysdale, Gaynor and Loofbourrow, who agreed with Dr. Delamere as to diagnosis.

Dr. Chas. C. Falk reported a case of carcinoma of pylorus with dilatation and perforation of stomach, presenting unusual features which made it impossible to make a diagnosis without an exploratory operation. The patient, a woman, had complained for several years of pain in the lower part of abdomen on left side; menstruation had been irregular, painful, and

at times the flow was excessive; stomach symptoms absent; bowels regular. On left side of abdomen, below umbilicus could be felt a tumor, apparently as large as a man's fist, and movable. Vaginal examination showed uterus normal in size and position; right ovary normal in size; left ovary not located. A diagnosis of probole ovarian tumor was made and operation advised. Under anesthesia the tumor was found to be fixed and on opening the abdomen he found an enormously dilated stomach with the pyloric end fixed by adhesions to the abdominal wall, where the tumor had been felt before opening the abdomen. On separating the adhesions he found a perforation of the stomach of considerable size. The pylorus was the seat of a malignant growth, which, together with the adhesions spoken of, had made up the tumor felt before operation. He removed the pylorus and pyloric end of stomach and made an anastomosis between stomach and duodenum. Patient died on sixth day after operation. Discussed by Drs. Wallace, Sinclair, McLaren, Gaynor and Drysdale.

LOS ANGELES COUNTY MEDICAL SOCIETY

At the regular meeting held at Chickering Hall on Friday evening, May 15, the program included a paper by Dr. W. W. Hitchcock, "Organic Heart Lesions with Reference to Life Insurance," and by Dr. Randall Hutchinson, "Diagnosis of Myocardial Degenerations." Discussion opened by Dr. H. G. Brainerd.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

The subject discussed at the regular April meeting was "Fracture of the Inferior Maxilla," introduced by Dr. John White and discussion opened by Dr. Baldwin. At the May meeting the subject for discussion was "Typhoid Fever," opened by Drs. Cox and Twitchell.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

The regular meeting on Tuesday evening, May 12, was adjourned after approving minutes and hearing report of committee on new members. Papers as follows on the evening's program will be read at the next meeting:

"Some Clinical Chest Cases with Fluoroscopic Reports," by Dr. C. M. Cooper; "Report of Case of Lupus Erythematosus," by Dr. A. B. Grosse; "Rodent Ulcer with Report of Case," by Dr. H. D'Arcy Power; "Treatment of Cirrhosis of the Liver with Ascites—Report of Case," by Dr. M. E. Kibbe; "Exhibition of Case of Resection of Clavicle," by Dr. D. B. Plymire.

SAN FRANCISCO SOCIETY EYE, EAR, NOSE AND THROAT SURGEONS.

Meeting held on January 15, 1903, President Dr. Louis C. Deane in the chair.

Dr. Robert Cohn on a case of cocaine poisoning: It was that of a young man about twenty years of age. Other than having just recovered from an attack of bronchitis, he was in very good health. Upon examination I found a spur of bone of the septum. Removed it with regular nasal saw. I used a twelve per cent solution and applied the cocaine on cotton to the nose frequently for some time. I warned the patient to be very careful and not swallow any. Just as the operation was finished he turned very pale and said he felt dizzy. Immediately put him into bed and almost quicker than I can tell it he was in a state of collapse. In the next few minutes the pulse ran up to 150 and 160, respiration as high as 50, 55 and 60, showing signs of extreme collapse. Almost died. Gave him 1-20 grain of strychnin; respiration more regular and slower. He complained of pain in breathing and feeling suffocated. For three hours he was between life and death. Repeated 1-20 grain of strychnin and strong coffee enemata, keeping him awake. It was between three and three and a half hours before we could leave him with safety.

Dr. Eaton: I happen to be old enough to have worked before cocaine was discovered. Can remember when the first of it came to this country. The first patient I used it on, after giving her perhaps a 4 per cent solution, collapsed, and I thought she was going to die. Now I frequently use a 20 per cent solution and have not had an accident. One early case was an old man to whom I gave a 15 per cent solution and whiskey. Met a dentist about that time who said I would probably kill some one. Haven't yet, and now I use 20 per cent. I believe two things in regard to this: First, the psychical condition. Personally, I am extremely susceptible to cocaine. Am intoxicated by it after just a few moments. Second, would not use strychnin, but some stimulant. This case of Dr. Cohn's seems to me to be psychical.

Dr. Deane: To state whether collapse is due to the local anesthetic or not, is sometimes puzzling. There is no question that collapse can occur from psychic influences, whether of fear or a reflex from the local irritation of a nerve. It would seem from Dr. Cohn's description that his case was clearly the result of the toxic influence of the drug, as the symptoms were marked and profound; yet there are few of us who cannot state similar cases of a much milder character, the result of mere aural or nasal application where no anesthetic was used.

Dr. Powers: Dr. Cohn's patient probably collapsed from swallowing the solution, but as a rule I think the collapse is more from the idea of an operation than from the cocaine. A patient seldom faints from a moderate solution. I begin with a 10 per cent solution and keep increasing the strength until the patient is entirely under its influence.

Dr. Burnett: I think the best method is by electrolysis and then give a 5 per cent solution of cocaine up to 5mm. This will render the operation absolutely painless. Remember the case of a man who was to have a nasal operation. The cocaine was given and quite an operation was performed with no pain. But after the operation was all over there was extreme collapse. This doubtless was due to psychical condition.

In regard to the strength of the solution, 10 per cent and 20 per cent solutions are seldom found necessary. I prefer an 8 per cent solution.

Dr. Redmond Payne: The use of dionin in diseases of the eye I believe was first reported by Darier of Paris. At any rate it was upon the suggestions made by him that I began its use. So far as I can learn, neither he nor anyone else has made anything like an extended report upon its therapeutic value, and what I have to say to-night is not in the nature of complete conclusions, but simply a few clinical hints as to the effects I have found in its use. I hope, as time goes on, to make a more methodical and complete test of its therapeutic value in diseases of the eye. Dionin is a derivative of morphin and has been used successfully as a substitute for both it and codeine as a general analgesic, the claim being made that it has narcotic and sedative effects without their disadvantages. My experience with it has been in diseases of the cornea and conjunctiva only. I use it in 4 per cent and 7 per cent solutions, placing two or three drops above the cornea, which then run down over it. I used it primarily for its local analgesic effect, but found later that it produced more than the analgesia. The only remedy we have had to relieve the pain caused by corneal diseases has been cocaine, which, if used continuously, produces a bad effect on the epithelium, thereby affecting the nutritive process and repair. Further, the anesthetic effect of cocaine is only temporary and must be re-

peated. For all the painful conditions of the cornea where an analgesic is indicated, two or three drops of dionin, used in one of the above strengths, depending on the severity of the pain, will produce analgesia and complete relief from pain for from 24 to 72 hours.

Dr. Deane: Dr. Payne's experience with dionin has been most interesting, and though my experience with the drug has been more limited, I cannot but speak of this new and altogether unique derivative of morphin. It is essentially an eye drug, for its use in other parts of the body has not been followed by the same results. This is apparent for several reasons: First, because its action upon the lymphatic circulation is so marked. (The eye is the most perfect example of lymph circulation in the body, especially the cornea, on which dionin has such a marked effect.) Its antiseptic power can only be demonstrated here as this action is produced only secondary through the stimulation of the flow of tears and of the lymphatic circulation within the tissues.

Dr. Brady: "Acute Glaucoma an Initial Symptom in Typhoid." The case that I wish to present is that of a woman normally delivered of twins. She passed through an uneventful puerperum of twenty-one days; although still weak, attended to her household cares for the ensuing two weeks. On Sunday she partook of a full evening meal. About five hours later her medical attendant was summoned and found her in the following condition: Temperature, 102.5° F.; greatly exhausted from persistent vomiting; unable to raise right arm; both wrists swollen and showing purpuric nodules. The left eyelids were markedly swollen, almost to closure, with strongly bulging chemotic conjunctiva. He gave her repeated hot applications to the eye, but the pain not subsiding after twenty-four eyes, called me in. The temporal pain was then intense; lids markedly inflamed and edematous, the gelatinous and strongly hyperemic conjunctiva bulging 2mm. foreward and overlapping limbus 1mm.; marked ciliary pain; iris dirty green color; pupil medium dilation; immobile; A. C. deepened; T=+2; light projection poor; light perception limited to shadow outlines. Marked yellowish green vitreous halo, no fundus detail; installation of eserine resulted in reduction of tension to +0.5 and great relief of pain. (Hot compresses continued.) Typical typhoid curve lead to widal test which was positive on tenth day.

Positive diazo: b, typhi obtained in pure culture from cephalic vein; marked anemia, red to 1,250,000, hemoglobin 35-40 per cent; bacteriological examination of genital tract and urine negative; asthenic symptoms and fever increased, exitus lethalis on fifteenth day. No autopsy allowed.

BONE TRANSPLANTING, AND REPORT OF A CASE.*

By A. W. MORTON, A. B., M. D., San Francisco.
Professor of Surgery, College of Physicians and Surgeons, and Surgeon to Santa Fe Railroad.

THE defects in bone structures heal so slowly that it is no wonder we are advised to sacrifice many extremities, which might be saved if we better understood the methods of repair.

Many surgeons, in their efforts to restore bone, have attempted to use non-absorbable material, such as silver plates, copper amalgam, plaster of paris, platinum, irridium, gutta percha, celluloid and many other substances, some of which have been very useful.

Our knowledge of this subject is limited, and most of the work done has been very unsatisfactory, which we would naturally expect when we consider that the bone proper has very little tendency to repair, and that it is principally from the osteoblast of the periosteum of the myeloplast, and of the medullary tissue.

In all the methods in use, it is necessary to have not only an aseptic cavity, but a very limited one, and a bountiful supply of periosteum.

There are indications when transplanting of bone is especially indicated.

First—Cosmetic effects in repairing the deformities about the nose. This method of transplanting a flap, including the skin, superficial structures, periosteum, occasionally the upper layer of bone, with a pedicle attached, is often made use of to repair the defects about the nose, face, and trachea, or to close spaces about the vault.

Second—To fill in the cavity of bones to hasten recovery. Small fragments of fresh bone from a person, or lower animal, or occasionally the decalcified bone chips of Senn, are used to close a sterile bone cavity. These reports should be considered of questionable value, when we consider that one of the requirements is to cover the fragments with periosteum, which has the power to reproduce bone; again, years have elapsed and the bone chips are found in the cavity without undergoing a change, simply remaining as a foreign body.

Third—The most important indication to be met is to restore the continuity of the long bones to support and protect the trunk. Where extensive defects in a long bone exist as a result of the destruction of periosteum and medullary structures by some mechanical injury, or disease, the only methods by which it can be repaired is to transplant a large piece of bone with vascular attachments from some point, near the defect, so that its pedicle will have plenty of blood supply; the deformity will seldom be in position to make use of any of the adjoining bone structures without interfering very materially with the function of the part.

CASE REPORTED.

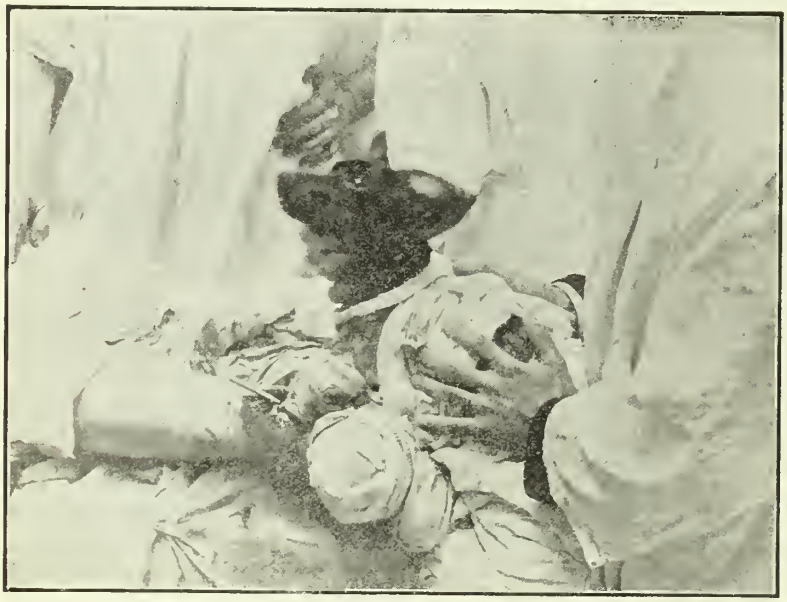
The case reported here shows the advantage of transplanting bone from lower animals to repair bone defects in man. This is unquestionably the first successful case of bone transplanting by vascular attachment from animal to man.

August Brandstedt, age 45, Swedish descent, free from any hereditary tendencies to disease; weight 245; health has always been good; uses liquors and tobacco in moderation; occupation is that of a painter. September 8th, 1900, patient fell about twelve feet, striking on the sidewalk, producing a compound comminuted fracture of the tibia and fibula of the right leg, near the

*Read at the Thirty-second Annual Meeting of the State Society, San Francisco, April 14-17, 1903.

lower end. He was admitted to the City and County Hospital on the same date; the fracture was set, drained and placed in a fracture box; the leg became enormously swollen, and sepsis soon developed. The patient came under my charge on October 5th, about one month after the injury; he had the appearance at that time of a person suffering from sepsis; his injured leg, including the knee joint, was swollen; temperature ranged from 100° to 103°; pulse rate from 100 to 110. A few days later an incision was made over the tibia, free drainage established, and necrotic pieces of bone removed. The parts were placed in a plaster cast (with window), and afterwards removed and kept in fracture box. His general condition improved, but there did not appear to be any repair at the seat of fracture.

On November 14th the patient was placed under the influence of medullary narcoses, and the parts opened, when I found the lower end of



JUST BEFORE INCASING IN PLASTER.

the tibia denuded of periosteum and the end necrotic. The lower five inches of this bone was removed with a chain saw. The fibula had united; the wound was swabbed with tincture of iodin and drained. The patient was returned to the ward, the leg placed in fracture box, with little doubt but that it would be necessary to amputate.

In a few days the parts improved, and on the 28th day of the same month the patient was again placed under medullary narcoses, the periosteum reseceted back, and the end of the bone freshened, so there was free hemorrhage; then a black-and-tan dog, of medium size, which had been prepared by trimming the hair, bathing and shaving the forelegs, was placed under ether, and the left foreleg thoroughly cleansed and amputated just above the torsus; the ulna was left one inch longer than the radius; the skin and muscles were divided by a longitudinal incision for about four inches, and left attached, except at about three inches at lowest end, which was removed to periosteum. The cut end of the ulna entered the cavity of the tibia for one inch, and was united with silver wire to same. The upper part of the incision in the leg was closed by stitches. This placed the dog's leg on nearly the same plane as the man's leg. The wounds were drained, as they were not aseptic; all the stronger tendons in each leg of the dog were severed by a subcutaneous incision; the wounds were dressed with gauze, and the other three legs of the dog were incased in plaster of paris separately; the dog and the leg of the man were incased in a plaster cast, extending to the knee of the patient. A space was left beneath the dog to prevent soiling from the urine or feces; a window was left at the wound, so that dressings could be changed. The plaster cast was made heavy and strong by imbedding splints in the cast. The patient was returned to the ward. The man suffered very little pain, or inconvenience, except for two or three days, as the dog was restless, and would attempt to move, and the more the dog would move, the more pain was not only inflicted on the patient but on himself. He soon realized this, so that it was not necessary to give any morphine to the dog after the fourth day. The dog and man became very much "attached" to each other.

The patient's general condition gradually improved, and his temperature and pulse remained about normal after the third day.

To keep the dog tightly incased in the cast, it was necessary to pack cotton and gauze around him, as he lost considerable flesh.

Five weeks later the man was again placed under medullary narcoses, and the dog under ether; the cast was removed, the skin and muscles were separated from the dog's leg, and the two bones divided near the joint, and were placed in contact with the astragalus; the skin and deeper structures were united, except at point of drainage, which slowly closed by granulation, except at the lower angle a fistula remained, through which a small fragment of one of the bones passed, which was broken at the time the dog was detached; this occurred four months later.

The skiagraphs taken three months after the operation show the callus around the bones, the dog's bone remaining in the center. A recent one shows where the lower end of the tabia has

formed bone corresponding in size to the tabia.

The patient walks about with his cane, but can get around without it, and has a very useful leg.

This case demonstrates that the defects of bone in man can be successfully transplanted from the lower animal by means of vascular attachment.

Secretaries of other County Societies are requested to read the report of Humboldt County Society published in this issue. If similar reports would be furnished by all the county societies, that department of the JOURNAL could be made quite as interesting and valuable as the very much alive Humboldt society makes it.

Overstudy and the Nervous Child—We do not much believe in the intellect, the morals or the pedagogics of the colt-breakers or the boy-breakers. There are better ways to break a horse or a child than to break its will, and the teacher that entertains such diabolic theories should be "broken." The noteworthy fact about the whole discussion is the utter omission from a hundred papers and discussions of the most important element of the entire matter. There are, it is true, many other factors; there is really overstudy and overpressure, but the one cause of the nervous child which is ignored, but which is as prolific a source of evil as perhaps all others combined, is eye-strain.—*American Medicine.*

Antiquity of Hospitals—Many centuries before the Christian era there existed in India and Ceylon institutions which performed the functions of hospitals (*Real-Encyclopadie*, Eulenberg). They were built and maintained by the Buddhists. In the Scriptures there is a mention of what the Hebrews called Bethesda, but this was nothing more than a few rude huts in the neighborhood of a mineral spring supposed to have healing properties. According to Lecky *(History of European Morals)*, the first hospital was founded by a Roman lady named Fabiola, about the fourth century, at Rome. Soon after another hospital was founded by St. Pammachus, and another by St. Basil at Caesarea. During the crusades numerous hospitals arose in all parts of Europe. San Spiritu, built by Innocent III, was erected in 1204 at Rome. The first hospital in England was built by Lanfranc, Archbishop of Canterbury, in 1080. The first hospital of any size erected in America was the Pennsylvania Hospital in Philadelphia, begun in 1751 by Dr. Bond and Benjamin Franklin.—*Philadelphia Medical Journal.*

Surgical Hint—Primary syphilis of the fingers and hands, for obvious reasons, occurs more frequently in physicians than in any other class of people. Hence, no physician is justified in failing to disinfect his hands with the utmost care after every examination of male or female genital regions or of mucous membranes. The worst way of diagnosing syphilis is by a culture experiment on the doctor himself. —*Journal of Surgery.*

MEMBERS OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

Abbott, G. E.....Pasadena
Abrahm, H.....1426 Fulton, S. F.
Abrams, A....Cal. & Van Ness, S. F.
Adam, G.....Phelan Bldg, S. F.
Adams, C. E.....Santa Clara
Adams, F. L.....Oakland
Adams, L. P.....Oakland
Aiken, G. H.....Fresno
Ainsworth, F. K....121 W. 2d, L. A.
Akerley, J. C. S.....Oakland
Alderson, H. E., Callaghan Bldg, S. F.
Aldridge, J. W.....San Bernardino
Allen, H.....600 Sutter, S. F.
Allen, L.W....St. Luke's Hosp., S. F.
Anderson, A. M. S.....Eastland
Anderson, C.....Santa Barbara
Anderson, H. O.....321 S. Hill, L. A.
Anderson, L.....1802 Haight, S. F.
Anderson, W.....1025 Sutter, S. F.
Andrews, H. A.....3402 24th, S. F.
Ardenyi, J.....1022 Mission, S. F.
Armstrong, J. M..629 Pasadena, L. A.
Armstrong, V....942 S. Flower, L. A.
Arnold, J. D.....1296 Van Ness, S. F.
Arthur, E A.....Stockton
Arthur, S R.....Woodbridge
Asay, J. L.....San Jose
Ashby, R H.....Roseville
Atkinson, F. L.....Sacramento
Austin, M. O....19th & Mission, S. F.
Babcock, W. D...Stimson, Blk, L. A.
Bacigalupi, L. D....705 Vallejo, S. F.
Bailly, T. E.....502 Sutter, S. F.
Baird, J. G.....Riverside
Baker, C.....San Diego
Baker, C. C.....1170 Market, S. F.
Baker, F.....San Diego
Baldwin, W. H.....Sacramento
Ball, C. D.....Santa Ana
Barbat, J. H.....590 Sutter, S. F.
Barbat, W. F.....1310 Folsom, S. F.
Barber, D. C.....Byrne Blk, L. A.
Barkan, A.....708 Market, S. F.
Barlow, W. J.....Wilcox Bldg, L. A.
Barney, H. N.....Richmond
Barr, J. H.....Marysville
Barr, W. T.....Fresno
Barrett, G. M.....1121 Sutter, S. F.
Barry, E.....Baker & Pacific, S. F.
Bauer, W. J.....3152 22d, S. F.
Baum, R. W.....139 Post, S. F.
Bazet, L.....908 Geary, S. F.
Beadles, E. S.....San Diego
Beattie, D. A.....Santa Clara
Beckett, W.W..Conser. L. Bldg, L.A.
Beckwith, W. M.....Oakland
Beede, W. M. S.....Stockton
Belknap, L. J.....San Jose
Bergstein, H.....826 Sutter, S. F.
Berndt, R. M. H....759 Folsom, S. F.
Berneike, J. G.....Santa Ana
Bertola, M.....1512 Mason, S. F.
Betts, W. W.....Wilcox Bldg, L. A.
Bicknell, F. T...Bradbury Bldg, L. A.
Bixby, E. M.....751 Sutter, S. F.
Black, J. A.....406 Sutter, S. F.
Black, S. P....737 Buena Vista, L. A.
Bloch, H. I.....807 Sutter, S. F.
Blum, S.....901 Sutter, S. F.
Bolton, W. T.....Pasadena
Booth, J. P.....Needles
Boskowitz, G. H.....1106 Post, S. F.
Botsford, M.....590 Sutter, S. F.
Bower, W. G....Laughlin Bldg, L. A.
Bowerman, A. C.....Brentwood
Boyd, J. P.....Santa Ana
Boyd, S. G.....140 Geary, S. F.
Boyd, W. M.....119 E. Spring, L. A.
Boyes, E. J.....Oakland
Bradley, E. R.....416 W. 4th, L. A.
Boyes, W. R.....606 Sutter, S. F.
Brainerd, H. G.Con. Life Bldg, L. A.
Brennan, T.....Hearst Bldg, S. F.
Brenneman, J. T.....Martinez
Bridge, N.....Potomac Bldg, L. A.
Brigham, C. B.....Mills Bldg, S. F.
Brighouse, H. E...1436 Market, S. F.
Briggs, A. E.....Elk Grove
Briggs, W. A.....Sacramento
Briggs, W. E.....Sacramento
Brill, W.....357 S. Spring, L. A.
Brinckerhoff, G.....Oakland
Brown, A.....1760 Washington, S. F.
Brown, E. E.....Martinez
Brown, H. C.....San Jose
Brown, M. W.....Alameda
Brown, O. S.....Wildomar
Brown, P. K.....1312 Van Ness, S. F.
Brown, T. F....4406 Central av, L. A.
Browning, C. C.....Highland
Bruner, F. M.....Santa Ana
Brunn, H.....533 Sutter, S. F.
Bryant, E. A.....Douglas Bldg, L. A.
Buckley, V. P.....514 Kearny, S. F.
Bucknall, G. J.....330 Sutter, S. F.
Bull, C. G.....Alameda
Bullard, F. D...Bradbury Bldg, L. A.
Bullard, R. T...Bradbury Bldg, L. A.
Bullard, W. B.....239 N. 23d, L. A.
Bulson, C. H.....Lincoln
Burchard, L. S.....Oakland
Burnham, C....1111 Devisadero, S. F.
Burnham, F. R.....San Diego
Burns, J. F.....San Jose
Burrows, F. J.....590 Sutter, S. F.
Burton, H. G.....Soldiers' Home
Buteau, S. H..... Oakland
Butler, C. V..Hotel Pleasanton, S. F.
Caglieri, G. E..526 Montgomery, S. F.
Callahan, J.....Sacramento
Cameron, H.....123 Ellis, S. F.
Campbell, G. W....Byrne Bldg, L. A.
Campbell, M. P.....1527 Larkin, S. F.
Card, C. W.....502 Devisadero, S. F.
Carlisle, E. S.....1013 Downey, L. A.
Carlson, C. H.....406 Sutter, S. F.
Carothers, H. J.....Martinez
Carpenter, F. B.....590 Sutter, S. F.
Carson, J. K.....Frost Blk, L. A.
Cartwright, C. O.....Sacramento
Casal, F. M.....Santa Barbara
Casey, P. F.....San Quentin
Castle, C. H.....1612 Van Ness, S. F.
Cates, H. G.....Douglas Blk, L. A.
Champion, J. A.....Colton
Channell, S. B.....Oakland
Cheney, W. F.....906 Polk, S. F.
Chismore, G.....705 Sutter, S. F.
Church, B. F.....Frost Blk, L. A.
Clark, A.....Stockton
Clark, F. P.....Stockton
Clark, J.....Gilroy
Clark, J. R.....1220 Sutter, S. F.
Clark, R. F.....Byrne Blk, L. A.
Clark, T. J.....Berkeley
Clark, W. A.....San Leandro
Clark, W. D.....32 O'Farrell, S. F.
Clark, W. R. P.....295 Geary, S. F.
Clarke, F. R.....Stockton
Clarke, L. H.....Riverside
Cleary, G.....San Diego
Cochran, W. G.....Byrne Bldg, L. A.
Coffey, T. J.....Wilcox Bldg, L. A.

Coffey, W. B.....Parrott Bldg, S. F.
Cohn, R. D.....1404 Sutter, S. F.
Colburn, J. R.....Wilcox Bldg, L. A.
Colc, G. L.....Potomac Bldg, L. A.
Collischoun, P.....757 Folsom, S. F.
Coney, E. J.....Fresno
Conlan, F. J.....406 Sutter, S. F.
Conrad, D. A.....Pasadena
Cook, E. J.....315 W. 6th, L. A.
Cooper, C. M.....590 Sutter, S. F.
Cope, W. H.....Pleasanton
Corbin, F. E.....1712 Pleasant, L. A.
Costigan, G. D.....9 Geary, S. F.
Cochran, L.....San Jose
Couper, E. W.....3301 Mission, S. F.
Cowan, A. B.....Fresno
Cowles, J. E.....Wilcox Blk, L. A.
Cox, R. L.....705 Sutter, S. F.
Cox, T. J.....Sacramento
Crabtree, H. T..3700 California, S. F.
Crane, J. A.....Santa Ana
Crisc, D.....Escondido
Crosby, D.....Oakland
Crowley, D. D.....Oakland
Crowley, T. J.....602 Franklin, S. F.
Crumpton, H. J.....Sausalito
Cummings, W. M.....San Diego
Cunnane, W. B.....Santa Barbara
Curnow, J. R.....San Jose
Curtis, H. L.....Mills Bldg, S. F.
Curtis, R. G...St. Luke's Hosp, S. F.
Cushing, Clinton.....590 Sutter, S. F.
Cushman, R.....Santa Ana
Cutler, G. A.....798 Hayes, S. F.
Dameron, J. D.....Stockton
D'Ancona, A. A....2826a Calif., S. F.
Davidson, A.....Laughlin Blk, L. A.
Davidson, J. D.....Fresno
Davidson, T.....Laughlin Blk, L. A.
Davis, G. W.....406 Sutter, S. F.
Davis, W. K.....San Jose
Davisson, J. H...Laughlin Bldg, L. A.
Day, B. W.....Hellman Blk, L. A.
Day, R. V.....Bradbury Blk, L. A.
Deacon, G.....Pasadena
Deal, L. B.....2599 Howard, S. F.
Deane, L. C.....606 Sutter, S. F.
Deckie, W. M.....C & C Hosp, S. F.
Delamere, H. S.....Ferndale
Dell, L. A.....Oakland
Delmont, F.....1847 Fillmore, S. F.
Dennis, M. D.....Avalon
DeVecchi, P.....Crocker Bldg, S. F.
De Witt, J. W.....Antioch
De Witt, T. B.....66 Geary, S. F.
Dickie, W. M.....C & C Hosp, S. F.
Dickson, C. S.....Riverside
Dietsch, C. O....Bradbury Blk, L. A.
Dillon, E. T.....Douglas Blk, L. A.
Dillon, J. F.....396 Fourth, S. F.
Dobson, G. H.....Santa Ana
Dodge, W.....1423 Van Ness, S. F.
Dodge, W.....Frost Blk, L. A.
Doig, R. L.....San Diego
Donnelly, E. F..1027 McAllister, S. F.
Dorn, D. I.....590 Sutter, S. F.
Dorr, L. L.....Crocker Bldg, S. F.
Dorr, W. R.....Crocker Bldg, S. F.
Dougherty, P. S..Potomac Bldg, L. A.
Downs, A. J.....Frost Blk, L. A.
Doyle, O. B.....Fresno
Dozier, B.....1217 Olive, L. A.
Dozier, C. A.....751 Sutter, S. F.
Dray, F. R.....406 Sutter, S. F.
Dresel, G.....Crocker Bldg, S. F.
Droll, G. A.....Sacramento
Dryer, J. L.....Santa Ana
Drysdale, G. N.....Eureka
Dufficy, G. W.....Sacramento
Dukeman, W. H.....Grant Blk, L. A.
Dukes, C. A.....Oakland
Dundas ,R. C.....809 Downey, L. A.
Dunn, E. C.....Fresno
Dunn, J. P. H.....Oakland
Dunsmoor, J. M..231 N. Grand, L. A.
Dunsmoor, N. C..231 N. Grand, L. A.
Easton, D. E. F...Parrott Bldg, S. F.
Eaton, F. F.....590 Sutter, S. F.
Eaton, F. B.....590 Sutter, S. F.
Ebright, G. E.....590 Sutter, S. F.
Edelman, D. W..Bradbury Blk, L. A.
Edwards. W. A.....Coronado
Eichler, A.....1242 Mission, S. F.
Ellis, H. Bert...Bradbury Blk, L. A.
Ellis, L. T.....731 W. 11th, L. A.
Ellis, T. E.....Elsinore
English, C. F.....2417 Howard, S. F.
Evans, G. H.....807 Sutter, S. F.
Evarts, R. M.....Santa Ynez
Ewer, E. N.....Oakland
Exline, J. W....5913 Pasadena, L. A.
Falk, C. C.....Eureka
Falk, C. O.....Eureka
Farrow, E. J.....1803a Mission, S. F.
Farnum, C. E.....Parrott Bldg, S. F.
Fasig, H. B.....531 Downey, L. A.
Fay, G. H.....Auburn
Fehleisen, F.....1210 Sutter, S. F.
Fellows, A.....929 S. Main, L. A.
Felt, R.....Eureka
Fenyes, A.....Pasadena
Ferbert, J. C....Bradburk Blk, L. A.
Field, E. R.....1230 Geary, S. F.
Fine, A.....Oakland
Fish, C. W.....Laughlin Bldg, L. A.
Fitch, G. L.....927 Market, S. F.
Fitzgerald, O. D..Douglas Bldg, L. A.
Fitzgibbon, F. T...860 Mission, S. F.
Fitzgibbon, G. J.....21 Powell, S. F.
Fleming, B. F....2212 Webster, S. F.
Flecing, E. W....Bradbury Blk, L. A.
Flint, W. H.....Santa Barbara
Flood, J. J...819 Gol. Gate av., S. F.
Fly, E. M.....National City
Follansbee, E. A.Laughlin Bldg, L.A.
Ford, C.....1401 Powell, S. F.
Fors, J. C.....Rocklin
Foreman, F. I.....1035 Post, S. F.
Foster, N. K.....Oakland
Fottrell, M. J.....Phelan Bldg, S. F.
Fowler, G. W. J.....Santa Clara
Fox, W. H.....1008 E. 25th, L. A.
Frankenheimer, J...406 Sutter, S. F.
Franklin, B. V.....San Diego
Franklin, W. S.....751 Sutter, S. F.
Frederick, M. W.....131 Post, S. F.
Freeman, E. M.....Santa Ana
Freeman, W.....Fullerton
Freeman, W. F.....Needles
Friedlander, D.....751 Sutter, S. F.
Frisbie, E. G.....1610 Van Ness, S. F.
Frost, F. R.....114 S. Spring, L. A.
Fuller, G. W...2306 California, S. F.
Fuson, A. U.....2484 Mission, S. F.
Gallimore, E.....San Jose
Gallwey, J.....602 Kearny, S. F.
Gardner, J. T.....Brentwood
Gardner, S. J.....Parrott Bldg, S. F.
Gaynor, J. J.....Eureka
Gedge, D. M.....406 Sutter, S. F.
George, W. S.....Antioch
Gianinni, A. H.....502 Sutter, S. F.
Gibbons, H.....920 Polk, S. F.
Gibbons, M. R.....920 Polk, S. F.
Gill, C. J.....Riverside
Gillihan, A. F.....Berkeley
Girdlestone, C. W.....Riverside
Glaser, E. F.....823 Sutter, S. F.
Gochenaur, D.....San Diego
Godin, A.....Wilson Blk, L. A.
Goff, H. N.....San Diego
Goodfellow, G.....751 Sutter, S. F.
Gordon, F.....Potomac Blk, L. A.
Gordon, H. S.....Santa Ana
Grant, D.....Bradbury Blk, L. A.
Graves, J. H.....1003 Valencia, S. F.
Green, J.....1200 Mason, S. F.
Green, J. S.....Oakland
Griffin, C. F.....3144 19th, S. F.
Gross, G.....327 Kearny, S. F.
Gross, H. G.....Eureka
Grosse, A. B.....2160 Post, S. F.
Grossman, E. L....413 Kearny, S. F.
Hadley, F. H.....Whittier
Hagadorn, J. L...Douglas Blk, L. A.
Hale, G. V.....Burbank
Halton, M.....590 Sutter, S. F.
Hamilton, N. H.....Santa Monica
Hamlin, O. D.....Oakland
Hammond, E. S....1132 Sutter, S. F.
Hammond, N. E..Laughlin Blg, L. A.
Hammond, R. R.....Stockton
Hanlon, E. R.....201 Gough, S. F.
Hanlon, E. W.....Marysville
Hanna, W. J.....Sacramento
Harbert, E.....Stockton
Hare, G. A.....Fresno
Harpster, J. N.....San Gabriel
Harris, H.....502 Sutter, S. F.
Harris, J. T.....San Jose
Harrison, E. G.....705 Sutter, S. F.
Harrison, S. I...2740 California, S. F.
Harry, C. R.....Stockton
Hart, A. C.....Sacramento
Hart, H. H.....123 Ellis, S. F.
Harvey, W. P.....569 Haight, S. F.
Hassler, W. C.....528 Sutter, S. F.
Hasson, D. W.....Buena Park
Hatch, F. W.....Sacramento
Hawkins, G.....Reidley
Hawkins,W.J..E.SpreckelsBldg. S. F.
Hayden, T. M.....Fresno
Haynes, J. R.....929 Main, L. A.
Henderson, A. M.....Sacramento
Henderson, J. J.....813 Sutter, S. F.
Hereford, W. S.....1115 Sutter, S. F.
Herrington, H.....467 Geary, S. F.
Herzstein, M.....801 Sutter, S. F.
Hess, H. A.....Pacific Hosp., S. F.
Hesser, G. T.....Folsom
Hibbard, W. E.....Pasadena
Hileman, J. E..Sp. Val. Bldg, S. F.
Hill, E. J.....Eureka
Hill, H. P.....807 Sutter, S. F.
Hill, R. C.....Grand Hotel, S. F.
Hill, R. W.....Carpenteria
Himmelsbach, W....1815 Scott, S. F.
Hitchcock, W.W..Laughlin Blk, L. A.
Hitt, M.....Bradbury Blk, L. A.
Hoffman, L. H.....751 Sutter, S. F.
Hogg, R. L.....Saratoga
Hoisholt, A. W.....Stockton
Holden, J. M.....Long Beach
Holmes, C. M.....Oakland
Holmes, T. B.....Oakland
Hopkins, H. St.G.....Fresno
Horel, R. R.....Arcata
Howard, E. S.....1016 Sutter, S. F.
Howard, K. I.....590 Sutter, S. F.
Howitt, H. O.....San Rafael
Hubbell, G. R.....1233 Polk, S. F.
Huff, S. G.....San Bernardino
Hulen, V. H.....751 Sutter, S. F.
Hull, J. P.....Lodi
Hund, F. J.....759 Folsom, S. F.
Hunkin, S. J.....1614 Calif., S. F.
Huntington, T. W...751 Sutter, S. F.
Huntington, W. D.....Oakland
Hurley, J. M.....San Bernardino
Hutchinson, G. L..Douglas Blg, L. A.
Hutchinson, R...Bradbury Blk, L. A.
Hyde, O. C.....Oakland
Jackson, C.....Laughlin Bldg, L. A.
James, J. W.....Sacramento
Jellinek, E. O.....751 Sutter, S. F.
Jenkins, J. F.....1050 W. 24th, L. A.
Johansen, E.....123 Geary, S. F.
Johnson, H. A...1312 Van Ness, S. F.
Johnson, J. H.....357 S. Spring, L. A.
Johnson, L. D.....Whittier
Johnson, M.....Frost Blk, L. A.
Johnson, M. L.....Oakland
Johnston, H. A.....Anaheim
Jones, L. F.....San Diego
Jones, P. M.....31 Post, S. F.
Jones, W. F.....San Rafael
Jordan, F. R.....Oakland
Jump, R. L.....Dimond
Kahl, C. W.....1802 Folsom, S. F.
Kahn, S. S.....814 Sutter, S. F.
Kane, J. M.....Oakland
Kearney, E.....2109 Estrella, L. A.
Kearney, P. A.....1208 Sutter, S. F.
Kearny, J. F.....237 Pierce, S. F.
Keck, F. C.....312 Ellis, S. F.
Keenan, A. S.....402 Hayes, S. F.
Keeney, J. W.....751 Sutter, S. F.
Kelley, T.....San Jose
Kelly, A. S.....Oakland
Kelly, E. E.....751 Sutter, S. F.
Kendall, O. J.....Riverside
Kengla, L. A.....1121 Sutter, S. F.
Kenyon, C. G.....901 Sutter, S. F.
Kerr, W. W.....1200 Van Ness, S. F.
Kibbe, M. E.....1563 Sutter, S. F.
Kiefer, H. A.....Douglas Bldg, L. A.
Kime, J. H.....Alton
King, C. L.....Pasadena
King, J. C.....Banning
King, J. M.....Potomac Blk, L. A.
Kirk, A. W.....927 Market, S. F.
Kirkpatrick, J. L..114 S.Spring, L. A.
Kistler, S. L.....3144 Vermont, L. A.
Kitchings, J. T.....Oakland
Knight, R. B.....Stockton
Knorp, F. F.....1218 Mission, S. F.
Knowles, S. E...Sp. Val. Bldg, S. F.
Knox, M. W.....Oakland
Knox, S. B. P.....Santa Barbara
Kohlmors, H.....Oakland
Kreutzmann, H.....1018 Sutter, S. F.
Krone, C. R.....Oakland
Krotszyner, M.....1209 Sutter, S. F.
Krull, F.....Sacramento
Kuckein, F.....233 Geary, S. F.
Kugeler, H.....813 Sutter, S. F.
Kuhlman, C. G.....338 Eddy, S. F.
Kurtz, C.....Douglas Blk, L. A.
Kurtz, J.....Douglas Blk, L. A.
Kuser, H.....Novato
Kuster, C. E.....110 W. 15th, L. A.
Lacy, J. M.....Santa Ana
Lagan, H.....2606 Folsom, S. F.
Laird, M. J.....Fresno
Lane, L. M.....1214 Hyde, S. F.
Langdon, S. W. R. Jr.....Stockton
Lanterman, R. A..357 S Spring, L. A.
Lanz, P. R.....Oakland
Lasher, G.W.Hollenbeck Hotel, L. A.
Latta, L.....San Diego
Latta, S. E.....Stockton
Laubersheimer, G A..316 W 6th, L.A.

Laughlin, C.....406 Sutter, S. F.
Lazard, E. M...Bradbury Bldg, L. A.
Leisenring, L. M.....Sacramento
Leland, T. B.....246 Sutter, S. F.
Lendrum, B. A.....Sacramento
Lengfeld, A. L....202 Stockton, S. F.
Leonard, E. L. 737 Buena Vista, L. A.
Leonard, J. V.....1114 Folsom, S. F.
Levin, Z.....43 6th, S. F.
Levison, C. G...1316 Van Ness, S. F.
Lewis, W. M.....Wilcox Blk, L. A.
Lewitt, W. B.....500 Van Ness, S. F.
Libby, A. A.....Pasadena
Liliencrantz, A.....Oakland
Liliencrantz, G.....Oakland
Lilley, J. F.....Oakland
Lindley, W.....315 W. 6th, L. A.
Lindsay, W. K.....Courtland
Lindsay, P. S.....Santa Monica
Liverman, J. R.....Kingsburg
Lobingier, A. S..Potomac Blg, L. A.
Lockwood, C. D..Douglas Bldg, L. A.
Loofbourrow, T. L.....Eureka
Look, H. H.....Sacramento
Lord, F. K.....Camptonville
Lucas, W. T.....Santa Maria
Luce, D.....Banta
Lund, G. J...Lankershim Bldg, L. A.
Lusson, P. M.....San Jose
Macdonald, G. C....32 O'Farrell, S. F.
Mace, L. S.....406 Sutter, S. F.
MacGowan, G...Douglas Bldg, L. A.
Macleish, A. L..Bradbury Bldg, L. A.
Mac Monagle, B.....590 Sutter, S. F.
MacNeil, H. G...1315 Figueroa, L. A.
Magee, C. L.....831 S. Flower, L. A.
Magee, T. L.....San Diego
Maguire, T. M.....46 O'Farrell, S. F.
Maher, J.....Oakland
Maher, T. D.....502 Sutter, S. F.
Malaby, Z. T.....576 Sutter, S. F.
Mann, C. S.....609 Sutter, S. F.
Mansfeldt, O...1801 Buchanan, S. F.
Mansfield, E.....Santa Barbara
Manson, J. I.....917 Van Ness, S. F.
Mardis, B. A.....Forest Hill
Martin, A. H.....Walnut Grove
Martin, H. R.....Riverside
Martin, J. L.....Fresno
Martin, R. S.....1617 Page, S. F.
Martin, W. S...Sp. Val. Bldg, S. F.
Martindale, J. H..Laughlin Bldg, L. A.
Mather, S.....421 Powell, S. F.
Mathis, E. N.....Douglas Bldg, L. A.
Mattison, F. E.....Pasadena
Maupin, J. L.....Fresno
Maupin, W. T.....Fresno
Mauzy, W. P.....Oakland
Maxson, W. H.....Oakland
Maybee, M.....Riverside
Mayer, O. J.....822 Sutter, S. F.
Maynard, H. H...Wilcox Bldg, L. A.
Mays, A. H.....Sausalito
Mayon, J. L.....Oakland
McArthur, P. R..10th&Figueroa,L.A.
McArthur, W. T..10th&Figueroa,L.A.
McBride, J. H...Potomac Bldg, L. A.
McCarthy, C. F..Sp. Val. Bldg, S. F.
McCarthy, I. A.....Corona
McChesney, J. G..1303 V Ness, S. F.
McCleave, T. C.....Berkeley
McConnell, E. G.....705 Sutter, S. F.
McCoy, T. J.....Bryson Blk, L. A.
McCullough, A. M..LaughlinBlk,L.A.
McDermott, W. P..1391 Valencia,S.F.
McDonald, T. P.....1128 Sutter, S. F.
McDougall, W. D.....San Jose
McGarry, J. A...660 W Wash'ton,L.A.
McGavren, H. S.....Sacramento
McGettigan, C. D....223 Powell, S. F.
McIntosh, A. M.....717 Jones, S. F.
McKee, A. B.....533 Sutter, S. F.
KcKee, J. A.....Sacramento
McKenzie, G.....Concord
McKibbon, R. E.....Loleta
McKinnon, G. W.....Arcata
McLaren, J. L.....Eureka
McLaughlin, J. H.....Angels
McLean, A. D.....123 Ellis, S. F.
McLean, D. L.....Sacramento
McLean, R. A.....246 Sutter, S. F.
McMurdo, J. R...Sp. Val. Bldg, S. F.
McNary, W. T.....San Jose
McNaughton, J. A.....Eureka
McNutt, W. F.....1220 Sutter, S. F.
McNutt, W. F. Jr..1220 Sutter, S. F.
Medlock, J. R.....Santa Ana
Medros, J. J.....Oakland
Meininger, L. L.....807 Sutter, S. F.
Melchonian, A. J.....Fresno
Melton, L.....Wheatland
Merritt, E. S..2323 Washington, S. F.
Merritt, G. W.....590 Sutter, S. F.
Messenger, O. G..Bradbury Blk, L. A.
Meux, T. R.....Fresno
Meyer, A. G.....2502 Folsom, S. F.
Meyer, J. H.....San Bernardino
Meyers, H.....751 Sutter, S. F.
Meyers, R. C.....1701 Powell, S. F.
Millar, C. F.....713 Market, S .F.
Miller, A. V.....Ferndale
Miller, C. H.....San Leandro
Miller, F. W..Conser. L. Bldg, L. A.
Miller, R. W...Laughlin Bldg, L. A.
Mills, C. W.....Arcata
Mills, C. W.....1016 Sutter, S. F.
Milton, J. L.....Oakland
Moffitt, H. C.....606 Sutter, S. F.
Mohun, C. C.....1817 Eddy, S. F.
Montgomery, D. W..1301 V Ness,S.F.
Montgomery, J.....336 Bush, S. F.
Moody, M. W.....2520 Howard, S. F.
Moore, M. L.....Bradbury Bldg, L. A.
Moore, W. G.....751 Sutter, S. F.
Morrissey, J. G..CallaghanBldg,S. F.
Morrow, H.....590 Sutter, S. F.
Morrison, N. A.....Fowler
Morrison, N. H...Bradbury Blk, L. A.
Morse, F. W.....Oakland
Morton, A. W.....Parrott Bldg, S. F.
Mosgrove, A. M.....1212 Sutter, S. F.
Moss, J. M.....696 Sutter, S. F.
Moulton, D. H.....Sacramento
Moulton, E. S.....Marysville
Muller, H. E.....Oakland
Murietta, A. J...Douglas Bldg, L. A.
Murphy, C. W...Cons. L. Bldg, L. A.
Murphy, W. W...307 S. B'dw'y,L. A.
Musser, F. R.....Oakland
Myers, C.....Hellman Blk, L. A.
Nadeau, H.....McDonald Blk, L. A.
Nagle, G. S.....1220 Sutter, S. F
Nast, J. E.....1354 Folsom, S. F.
Neff, F. F.....Concord
Nelson, C. R.....Towles
Nelson, L.....1118 Sutter, S. F.
Newman, S. C.....901 Sutter, S. F.
Newman, S.....Santa Barbara
Newmark, L.....590 Sutter, S. F.
Newmark, P.....Bradbury Blk, L. A.
Nichols, H. L.....Sacramento
Nichols, V. D.....San Diego
Nicholson, A. R.....Fresno
Nixon, A. W.....865 S. Hill, L. A.
Noble, M.....2898 Sutter, S. F.
Noble, M. L.....1126 W. 31st, L. A.
Nourse, B. S.....Represa
Nusbaum, A.....320 Ellis, S. F.
Nusbaumer, P. S.....Oakland
O'Connell, M.W..110 Devisadero, S.F.
O'Connor, J. H...Parrott Bldg, S. F.
Ohrwall, H.....502 Sutter, S. F.
Oliver, H. R..1325 Sacramento, S. F.
Oliver, J. A.....1825 Turk, S. F.
O'Neil, A. A.....C & C Hosp., S. F.
Ophuls, W.....Lane Hosp., S. F.
Orella, F. R.....406 Sutter, S. F.
Orme, H. S.....Douglas Blk, L. A.
Orr, R. H.....2104 Howard, S. F.
Osburne, A. E.....Santa Clara
Osmun, W.F..1604 Leavenworth, S.F.
Ootwater, S.....Riverside
Overend, E. J.....Oakland
Pahl, P. C. H.....920 W. 7th, L. A.
Palette, E. M.....Hellman Blk, L. A.
Palmer, E. O.....Hollywood
Parker, A. S.....Riverside
Parker, P. J.....San Diego
Parkinson, J. H.....Sacramento
Parsegan, J. H.....Fresno
Partridge, H.....2632 Howard, S. F.
Paul, J. W.....Santa Clara
Pawlicki, C. F.....705 Sutter, S. F.
Payne, F. H.....Berkeley
Payne, R. W.....Sp. Val. Bldg, S. F.
Payton, W. B.....Perris
Peck, R. E.....Hearst Bldg, S. F.
Pedlar, A. J.....Fresno
Peers, R. A.....Colfax
Peery, T. P.....Yuba City
Perrott, W. L.....Blue Lake
Perry, A. W.....1236 Market, S. F.
Perry, W. F.....Corona
Petrie, F. B.....211 S. Calif., S. F
Philip, J. H.....121 Geary, S. F.
Philip, W. S...Con'sr Life Bldg, L. A.
Phipps, C.....1211 Jackson, S. F.
Pierce, C. W.....315 W. 6th, L. A.
Pillsbury, E. L.....Wilcox Blk, L. A.
Piper, H. E.....Mt. Zion Hosp, S. F.
Pischel, K.....Crocker Bldg, S. F.
Plymire, D. B.....528 Sutter, S. F.
Pond, G. P.....Sp. Valley Bldg, S. F.
Pond, H. M.....Alameda
Poore, J. E.....Sacramento
Porter, W. S.....Oakland
Pottenger, F. M..Bradbury Blk, L. A.
Powell, B. J.....Stockton
Powell, D.....Marysville
Power, H. D'A.....1025 Sutter, S. F.
Powers, G. H.....533 Sutter, S. F.
Powers, L. M.....City Hall, L. A.
Pratt, A. H.....Oakland
Proschold, H...400 Golden Gate, S. F.
Purlenky, G. P.....404 3d, S. F.
Quinan, C.....751 Sutter, S. F.
Quint, S. J.....Potomac Bldg, L. A.
Radebaugh, J. M.....Pasadena
Rattan, F.....Martinez
Ray, D. F.....Stockton
Redington, V.....Oakland
Regensberger, M....803 Sutter, S. F.
Reinhardt, G. F.....Berkeley
Remondino, P. C.....San Diego
Rendon, V....Lankershim Bldg, L. A.
Rethers, T. C...Sp. Valley Bldg, S. F.
Reynolds, G. P.....Alameda
Reynolds, F. W.....San Pedro
Reynolds, H. B.....751 Sutter, S. F.
Richter, C. M.....640 Geary, S. F.
Richter, L.....Laughlin Blk, L. A.
Rickey, A. W.....Port Costa
Rigdon, R. L.....Hearst Bldg, S. F.
Riley, C. A.....Redlands
Riley, J. S.....Port Costa
Riley, W. C.....Flood Bldg, S. F.
Rinehart, J. F.....Oakland
Rinne, F. A.....1312 Market, S. F.
Ritter, M. B.....Berkeley
Rixford, E.....1400 Van Ness, S. F.
Roberts, W. H.....Pasadena
Robertson, J. W.....Livermore
Roblee, N. M.....Riverside
Rochex, J.....Tomales
Roese, C. H.....360 Geary, S. F.
Rogers, A. C.....Bryson Blk, L. A.
Rogers, L.....Douglas Bldg, L. A.
Rood, V. D.....San Diego
Rooney, R. F.....Auburn
Rosenberger, J. D.....Sanger
Rosencrantz, N....Hearst Bldg, S. F.
Rosenstirn, J.....932 Sutter, S. F.
Rosenthal, C. H.....636 Baker, S. F.
Ross, T.....Sacramento
Roth, L.....McDonald Blk, L. A.
Rothschild, M.....1209 Sutter, S. F.
Rowe, C. H.....Oakland
Rowell, C.....Fresno
Rowell, G. B.....San Bernardino
Rowell, H. N.....Berkeley
Royer, D. F.....Orange
Russ, R.....751 Sutter, S. F.
Russel, T. G.....751 Sutter, S. F.
Russell, A. J.....Oakland
Russell, P. N.....Fresno
Ryer, M. B.....546 Turk, S. F.
Ryfkogel, H. A. L...590 Sutter, S. F.
Salomon, M.....334 Geary, S. F.
Sample, T. N.....Fresno
Sampson, A. F.....1220 Sutter, S. F.
Sanborn, F. A...825 S. B'dway, L. A.
Sanborn, W. K.....Oakland
Sanders, G. L.....409½ 3d, S. F.
Sanderson, A. J..1201 Van Ness, S. F.
Sanderson, H. E.....Stockton
Sassella, B.....Allen Blk, L. A.
Sawyer, F. E.....406 Sutter, S. F.
Sawyer, W. B.....Riverside
Schloss, A.....Parrott Bldg, S. F.
Schmitt, L. S..U.S.Marine Hosp,S. F.
Schmitz, J.....3000 S. Main, L. A.
Schabel, M.....Newcastle
Scholl, A. J.....1336 S. Market, L. A.
Schwalbe, C.....1002 S. Olive, L. A.
Scott, F.....Belvedere
Scott, G. H.....Redlands
Scott, R. T.....1205 Valencia, S. F.
Seaman, E. D.....Bullard Blk, L. A.
Seeber, C. W.....Laughlin Blk, L. A.
Seifert, G. W.....San Jose
Sexton, C. L.....105 E. 1st, L. A.
Seymour, F. A...307 S. B'dway, L. A.
Seymour, J. H.....659 S. Hill, L. A.
Seymour, J. H.....1301 Castro, S. F.
Shannon, J. M.....Oakland
Sharp, J. G.....590 Sutter, S. F.
Sherk, H. H.....Pasadena
Sherman, H. M..1303 Van Ness, S. F.
Shiels, G. F.....Sp. Val. Bldg, S. F.
Shiels, J. W.....Merritt Bldg, S. F.
Shorb, J. DeB.....Bullard Blk, L. A.
Shreck, J. A.....Santa Barbara
Shuey, S. I.....Oakland
Shumate, T. E.....794 Sutter, S. F.
Shurtleff, F. C.....221 W. 5th, L. A.
Sidebotham, H.....Santa Barbara
Sill, E. R.....Oakland
Simmons, G. C.....Sacramento
Simmons, G. L.....Sacramento
Simmons, S. E.....Sacramento
Simmons, H. M.....618 Grove, S. F.
Simon, J.....813 Sutter, S. F.

Simpson, J. A.....618 20th, S. F.
Sinclair, E. W.....Eureka
Skeel, D. L.....Laughlin Bldg, L. A.
Slaughter, H. J.....Folsom
Smiley, V. M.....1214 Hyde, S. F.
Smith, E. R.....Bradbury Blk, L. A.
Smith, D.....Livermore
Smith, E. H.....Santa Clara
Smith, K.....San Leandro
Smith, R. J.....Mentone
Smith, W. O.....Alameda
Smythe, M.....Stockton
Snedigar, W. S.....Stockton
Sobey, A. L.....3524 20th, S. F.
Soiland, A....Con'sr Life Bldg, L. A.
Somers, G. B.....123 Ellis, S. F.
Southard, C. O.....1220 Sutter, S. F.
Southard, W. F.....1220 Sutter, S. F.
Southworth, H. E.....Stockton
Southworth, M. A.....San Jose
Spalding, A. B.....751 Sutter, S. F.
Spencer, J. C.....590 Sutter, S. F.
Sperry, M. A.....1201 Sutter, S. F.
Sprague, F. R.....1201 Sutter, S. F.
Sprague, W. P.....610 Jones, S. F.
Spriggs, L. W....315 Van Ness, S. F.
Stafford, A. A.....Alameda
Stafford, O. R.....Santa Ynez
Stapler, D. A.....1010 Sutter, S. F.
Starr, F. R.....651 Vallejo, S. F.
Stearns, V. J.....417½ 3d, S. F.
Steddon, F. W..Laughlin Bldg, L. A.
Stehman, H. B....Potomac Blk, L. A.
Steinwand, A. W.....Selma
Steltzner, E.....Phelan Bldg, S. F.
Stephen, J. I.....813 Sutter, S. F.
Stephens, W. B.....231 Post, S. F.
Stern, A. A.....246 Sutter, S. F.
Stevens, W. E.....1403 Calif., S. F.
Stevenson, G. L.....Sacramento
Stewart, J. T.....Frost Bldg, L. A.
Stile, J.....2311 Sutter, S. F.
Still, J. J.....Douglas Bldg, L. A.
Stillman, S.....9 Geary, S. F.
Stimson, J.....1312 Folsom, S. F.
Stinson, J. C.....533 Sutter, S. F.
Stivers, C. G.....315 W. 6th, L. A.
Stirewalt, H. W.....305 Kearny, S. F.
Stoddard, C. S.....Santa Barbara
Stone, C. E.....Marysville
Stone, E. E.....Napa
Strader, H. W.....Sacramento
Stratton, G. W.....Marysville
Stralton, R. T.....Oakland
Strunsky, M.....901 Gol Gate, S. F.
Sullivan, W. N.....751 Sutter, S. F.
Sutherland, F. B...Phelan Bldg, S. F.
Sutliff, F. B.....Sacramento
Swan, B. R.....Mut. Life Bldg, S. F.
Sweet, E. B...757 S. Burlingtn, L. A.
Taggart, C. F.....Douglas Blk, L. A.
Taggart, H. W.....Stockton
Tait, D.....1054 Post, S. F.
Tate, C. F. S.....Bullard Blk, L. A.
Taylor, A. E.....2019 Broderick, S. F.
Taylor, A. H.....123 Ellis, S. F.
Taylor, A. M.....1106 Post, S. F.
Taylor, O. N...3014 Sacramento, S. F.
Taylor, R. G.....Bradbury Blk, L. A.
Terry, W. I.....751 Sutter, S. F.
Thayer, J. W.....Gilroy
Theile, W. C. A...974 Beaudry, L. A.
Thomas, E. W.....439 3d, S. F.
Thomas, H. G.....Oakland
Thomas, P. M.....813 Sutter, S. F.
Thompson, W.....San Bernardino
Thorne, I. W.....813 Sutter, S. F.
Thorne, W. S.....813 Sutter, S. F.
Thornton, D. D...Douglas Bldg, L. A.
Thorpe, L. S.....Wilcox Bldg, L. A.
Titchworth, J. C.....2924 Bush, S. F.
Todd, J. H.....Oakland
Todd, T. M.....Auburn
Topping, F. P.....533 Sutter, S. F.
Trask, S.....321 Geary, S. F.
Troppman, C. M...4206 Market, S. F.
Trowbridge, T. H.....Fresno
Trueman, J. E.....San Jose
Trueworth, J. W....Byrne Blk, L. A.
Tuggle, S. P.....Sp. Val. Bldg, S. F.
Turner, J. S.....Gates Blk, L. A.
Twitchell, E. W.....Sacramento
Tyler, H.....Redlands
Tyler, J. A.....Anaheim
Utley, J. H.....Bradbury Bldg, L. A.
Valla, A. Z.....127 N. Main, S. F.
Van Danburg, J.....406 Sutter, S. F.
Van Dyke, E. C.....751 Sutter, S. F.
Van Orden, K. P.....Alameda
Van Orden, L.....Alameda
Van Zwalenberg, C.....Riverside
Vaughan, C. E.....Santa Barbara
Vecki, V. G.....36 Geary, S. F.
Vestal, H.....Smartville
Visscher, L. G..Laughlin Bldg, L. A.
Von Adelung, E.....Oakland
Von Hoffman, C. A..1014 Sutter, S. F.
Voorsanger, W.C..1249 Franklin, S.F.
Vowinckel, F. W..903 Van Ness, S. F.
Wade, W. L.....421 S. Hill, L. A.
Wadsworth, C. C..1104 V Ness, S. F.
Wagner, H. L.....522 Sutter, S. F.
Wagner, J.....483 Valencia, S. F.
Wagstaff, M.....515 Downey, L. A.
Wahl, H. I.....415 Turk, S. F.
Walker, B. F.....Laton
Walker, J. R.....Fresno
Walker, S. L.....315 6th, L. A.
Wall, W. B.....Tustin
Wallace, W. H.....Eureka
Walrath, G. B....1014 Figueroa, L. A.
Walsh, W. J....Mt. Zion Hosp, S. F.
Wanzer, L. M. F....205 Taylor, S. F.
Waterman, H. J.....1135 Polk, S. F.
Watkins, J. T.....502 Sutter, S. F.
Watt, F. W.....Walnut Creek
Wehrly, J.....Santa Ana
Weil, C.....828 Sutter, S. F.
Welch, C.....Douglas, Bldg, L. A.
Wemple, E. L.....751 Sutter, S. F.
Wemple, E. L. Jr....751 Sutter, S. F.
Werner, A. F.....2332 Sutter, S. F.
Wheeler, P. L.....Oakland
White, D. W.....San Bernardino
White, G. A.....Sacramento
White, J.....Sacramento
White, J. F.....Auburn
Whitney, J. D....Crocker Bldg, S. F.
Wiard, W. F.....Sacramento
Wickman, W. J.....San Rafael
Wilbur, R. L.....Palo Alto
Wilcox, O. J.....Oakland
Wilde, K.....Laughlin Bldg, L. A.
Wilde, E. M.....Sacramento
Willard, W. P..Sutter&Fillmore,S. F.
Williams, F.....1781 Haight, S. F.
Williams, R.....Douglas Bldg, L. A.
Williams, R. B.....Oakland
Williams, T. A.....Oakland
Williamson, J. M.....21 Powell, S. F.
Willis, E. A.....Grant Bldg, L. A.
Willits, E. K.....1201 Sutter, S. F.
Wills, W. LeM.....Wilcox Blk, L. A.
Wilson, A. D.....Fowler
Wilson, F. E.....Westminster
Wilson, F. P.....751 Sutter, S. F.
Wilson, W. L.....Milpitas
Winchester, R. F.....Santa Barbara
Wing, H. B.....Bradbury Blk, L. A.
Winterberg, W...1208 Van Ness, S. F.
Winterberg, W. H....813 Sutter, S. F.
Wislocki, E.....San Jose
Witherbee, O. O.....Frost Blk, L. A.
Witter, G. F.....San Jose
Wood, J. W.....Long Beach
Woodbridge, B.....Rocklin
Woods, A. M.....1135 Polk, S. F.
Woodward, A. P....1220 Sutter, S. F.
Woolsey, C....Sp. Valley Bldg, S. F.
Woolsey, E. H.....Oakland
Woolsey, F. R.....Berkeley
Woolsey, M. H...Sp. Val. Bldg, S. F.
Wright, H. E.....Sacramento
Wright, H. J. B.....San Jose
Wymore, W. W....805 Valencia, S. F.
Yost, F. O.....1031 Downey, L. A.
Young, J. D.....Stockton
Young, W. J.....Stockton
Zillmer, A. L.....1009 Mission, S. F.
Zobel, A. J.....1403 California, S. F.

MEMBERS-AT-LARGE

Adler, A. S.....1113 Sutter, S. F.
Armistead, H. V.....Newman
Barret, W. M.....Redwood City
Barry, W. T.....Salinas
Beattie, W. G.....Colma
Belknap, F. A.....1025 Sutter, S. F.
Bellamy, B. C.....Watsonville
Besson, F. A.....671 Turk, S. F.
Bond, J. L.....Ukiah
Bothe, A. C.....526 Guerrero, S. F.
Brady, G.....Sp. Valley Bldg, S. F.
Brown, C. B.....1212 Sutter, S. F.
Callandreau, J.....404 Post, S. F.
Campbell, P. C.....Point Richmond
Chamberlain, F. O....Tonopah, Nev.
Carson, J. L.....Bakersfield
Cohn, I. E.....Napa
Coil, M. F.....Woodland
Coolidge, T.....1436 Market, S. F.
Craig, T.....Capay
Crees, R.....Byron Springs
Cross, W. W.....Visalia
Davis, H. H.....Sonoma
Dawson, W. J. G.....Glen Ellen
Day, L. B.....1025 Sutter, S. F.
Dorais, L. P....1001 Van Ness, S. F.
Downes, C. S.....160 Gol Gate, S. F.
Dwinnell, G. W.....Montague
Edwards, T. C.....Salinas
Evans, C. W.....Modesto
Fife, J.....Red Bluff
Fletcher, M. D.....Alameda
Fouch, A.....N. San Juan
Fowler, W. S.....Bakersfield
Gallimore, E.....San Jose
Gardner, A. M.....771 Sutter, S. F.
Gordon, S. B.....Salinas City
Hall, J. N. Jr.....San Jose
Hanson, G. F.....233 Geary, S. F.
Harris, F. W.....933 Market, S. F
Hashmito, S.....321 Powell, S. F.
Hawkins, J. H.....St. Helena
Hickman, W. L.....Georgetown
Higgins, R. M.....1133 Polk, S. F.
Hill, J. D.....1116 Sutter, S. F.
Hirschfelder, J. O....481 Geary, S. F.
Hodghead, D. A....1025 Sutter, S. F.
Hopkins, W. E.....803 Sutter, S. F.
Jackson, W. J.....44 3d, S. F.
Jones, W. H.....Santa Barbara
Kahn, A. J.....Napa
Keefe, J. J.....235 Kearny, S. F.
Kellogg, W. H.....406 Sutter, S. F.
Kent, R. W.....Sonora
Key, J. W.....Pinole
King, E. W.....Talmage
Knowles, C. W...Sp. Val. Bldg, S. F.
Kobicke, S. B.....1220 Sutter, S. F.
Lawhead, H. D.....Woodland
LeFevre, J. P..328 Montgomery, S. F.
Legler, H. T.....Oakland
Leonard, J. T.....Merced
Lewis, A. P.....Sutter Creek
Loomis, M. L.....Beckwith
Loper, A. N.....St. Helena
Lux, F. W.....Mills Bldg, S. F.
Marquis, F. P. C..1101 V Ness, S. F.
Mason, M.....Corning
Mattner, E. H.....505 V Ness, S. F.
McLean, A. D.....123 Ellis, S. F.
McLeod, J. H.....Santa Rosa
McTaggart, M. F.....Grass Valley
Mills, H. C.....C & C Hosp., S. F.
Mountain, M. W.....Placerville
Nutting, C. W.....Etna Mills
O'Bannon, R. W.....Hollister
Osborne, A. E.....Glen Ellen
Osborne, D. E.....St. Helena
Otto, G. W.....Santa Barbara
Owen, J. A.....Red Bluff
Palmer, H. P.....Woodland
Parish, H. L.....Calistoga
Plymire, H. G...South San Francisco
Prather, D. J.....Bakersfield
Pritchard, M.....Sierraville
Rantz, S. H.....Placerville
Reynolds, R. G.....Upper Lake
Robertson, J.....2104 Market, S. F.
Rogers, J. B.....North Bloomfield
Ross, T. D.....Ferndale
Rucker, H. N.....Merced
Shank, G. A.....Benicia
Sherman, W. N.....Fresno
Stansbury, O.....Chico
Stephens, W. B.....231 Post, S. F.
Stuart, A. McG.....Santa Rosa
Taylor, W. S.....Livermore
Tebbets, J. H.....Hollister
Tickell, A. H.....Nevada City
Tinsman, C. M.....Adin
Tooley, L. P.....Willows
Von Werthern, J...1501 Church, S. F.
Voorhies, A. H.....1220 Sutter, S. F.
Wakefield, W. F. B.....Sutter, S. F.
Watters, P. K.....Watsonville
Webster, L. R.....Oakland
Welges, L.....Woodland
Whiting, H. C.....Santa Cruz
Wightman, W. M..811 Chestnut, S. F.
Wilson, H. F.....235 Kearny, S. F.
Winegar, A. M.....St. Helena
Wood, E. G.....Benicia
Wood, T. D.....New York
Wrenn, J. Q.....Placerville
Wyckoff, H. G.....Ukiah
Zelinsky, F.....St. Helena

PERMANENT MEMBERS.

Bates, C. B.....Santa Barbara
Cluness, W. R.....406 Sutter, S. F.
Cushing, C.....590 Sutter, S. F.
Ellinwood, C. N.....715 Clay, S. F.
Flint, T.....San Juan
Foote, E. N.....Lockford
Hunt, R. M.....Nevada City
Neal, H.....San Miguel
Rogers, S. J. S.....Marysville
Shurtleff, B.....Napa

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

JULY, 1903.

EDITORIAL NOTES.

ORGANIZATION GROWING APACE.

The good work of national organization of the whole medical profession is going on rapidly. Texas has reorganized its State medical society, and has acted wisely in adopting the Constitution and By-laws recommended by the American Medical Association, practically without alteration. There are some 6000 physicians in Texas, and the organizers in that State are hopeful of having most of them within the State society before the end of the year. Probably by the end of another year the full plan of reorganization of the American Medical Association will have been adopted; at New Orleans Dr. M. L. Harris, of Chicago, introduced an amendment making all members of affiliated State societies members of the A. M. A., and this, together with many similar measures tending in the same direction, will come before the Association next year. We, in California, certainly want to make a satisfactory showing, and we can hardly do this unless we have at least two-thirds of the physicians of the State within the State Society. This can only be the case if they are members of the county societies, and it therefore becomes the duty of every member of a county society to see that every reputable physician in his county is or shall become a member of the county society. Relative, and not actual size, is the thing to be desired. Probably the strongest county society in the country is one in Kentucky which has but four members; but there are only four physicians in the county. This county society meets regularly and profitably. One of its members is generally away, taking post-graduate work or studying matters of interest which the other members profit by on his return; and while he is away the other men look after his practice and see that he loses nothing. In this manner harmony and improved facilities for learning and study have replaced discord and the stagnation of an unchanging life. It is not only in order to have a big organization; to have a huge list of members; to have a big and powerful political machine, that organization is urged; it is more for the actual benefit that comes to each individual man from such close organization. If every reputable physician in the State belonged to his county society, there would be astonishingly few quarrels and disputes of a personal nature. Do a little missionary work; see to it that before the end of the month you have secured the application to your county society of at least one physician.

OFFICIAL REGISTER OF PHYSICANIS.

The publication of the Official Register of Physicians of California was placed, at the annual meeting of the Society, in the hands of the Trustees. They have authorized its publication and the work is now under way. It is to the interest of all to have a complete and accurate register. This can only be obtained through the coöperation of every individual. The data can only be obtained through such coöperation. Every physician in California will receive a return postal card with questions for the desired information. To expedite the work and insure correct information it is necessary that these cards be filled out and returned as soon as possible. The information so received will also be used in making up the card Index of Physicians to be kept by the Secretary. Information regarding the Register should be sent to Dr. H. P. Hill, 807 Sutter Street, San Francisco.

PROGENY INSURANCE.

An enterprise that is new, good, sound and in every way commendable, has recently been organized by some women of Boston who have combined excellent business judgment with the best of sociologic common sense. Insurance of moderate cost, issued by a company incorporated under the Massachusetts insurance laws, which seek first to protect the insured, may soon be obtained; the benefits receivable on the birth of a living child or children are: "After paying five regular assessments ($16), $200; after eleven, ($31), $300; after seventeen ($53), $400; after twenty-three ($71), $500, or $500 at any time thereafter while the policy remains in force." The annual dues are $1 and the assessments are $6 for the first month after application, and $3 for every subsequent month. No benefit will be paid for a birth occurring within nine months from the time of application. The present company limits membership to members of the American Mothers' Association, but it will probably extend its operations, or other similar companies will be formed to undertake the good work on more extended lines. Certainly nothing could seem more welcome for young people in moderate

circumstances who wish to marry, yet for whom the obligations of probable parentage and the expenses which must necessarily ensue are too great an obstacle. Certainly nothing more praiseworthy, or more likely to oppose the "race suicide" feared by Mr. Roosevelt, could have been suggested.

CONTRACT DOCTORS.

The contract doctor evil probably exists for the same reason "that a few fleas are good for a dog"; at any rate, it is with us in spite of all efforts to the contrary. If we cannot rid ourselves of the evil, we can at least derive a modicum of consolation from the cheerful contemplation of others in worse plight. It may be a mean and low sort of consolation, but none the less it is the human-nature sort. Report has it that the contract doctors of Germany are well unionized and have decided to go on strike July 1st, unless their demands, forsooth, are complied with! It would appear that they are now struggling along on a basis of about five cents for each visit and, greedy wretches, they demand more compensation! We certainly have to put up with the contract evil, more or less pronounced, but we, in this country, have thus far been spared competition with the contract doctor whose professional services are requited on the basis of five cents per visit. Perhaps it would discourage the practice, in this country, if we could in some way reduce the payment of the contract doctor to the German standard. It might be worth an attempt.

WHY PLACE WAS SELECTED.

When the matter of choosing a place for holding the next annual meeting was up for discussion at Santa Barbara, some expressions of opinion were made favoring the larger cities. The choice, however, after the ground had been fully gone over, fell to Paso Robles. There were good reasons given for this selection by the advocates of suburban places as against the big cities, and one strong point made—possibly the deciding one—was that nearly every physician in the State has occasion to visit either San Francisco or Los Angeles, possibly both cities, several times during the year on professional or social business, and a trip thither has little if any element of novelty or of recreation. The health and social resorts of the State offer not only sufficient accommodations for holding the meetings of the Society, but the tired and weary practitioner finds rest and rejuvenation in a visit to those places, to which he unhesitatingly sends his patients, but too seldom has opportunity to enjoy himself. The city may offer attractions to the isolated rural doctor, and doubtless does in certain ways, but if that same doctor have a patient requiring rest and quiet he sends him not to the big, noisy, hurrying, bustling city, but to the quietude and restfulness to be found at one of California's celebrated resorts. He may send his patient to the city in order to obtain the benefit of hospital treatment and care unprovided at home, but he hurries the convalescent back directly the trip may be safely undertaken.

PHYSICIANS' MUTUAL AID ASSOCIATION.

Anything that can tend to bring physicians together into closer touch and more harmonious relations is certainly commendable. The formation of the Physicians Mutual Aid Society of the Pacific Slope, "organized for the sole purpose of aiding and protecting all members of the regular medical profession, in times of need or in case of death," would seem to have a tendency in this direction. Organizations of this sort, of the nature of mutual insurance, where the officers do not receive salaries and where there are no stockholders to demand profits, can be very successfully operated and in very many instances have been found to be of great benefit and value. The list of officers of this association includes many names of men known to the medical profession of the entire Coast to be above question of honesty, and their administration of the organization should be successful. The prospectus, which was distributed at the Santa Barbara meeting of the State Society, should receive the careful attention of every physician in the State. Dr. John E. Janes, of Pasadena, is the secretary, and doubtless those who are attracted to the association and have not received the prospectus can get full information by addressing him.

THE JOURNAL IS YOURS.

The JOURNAL is just as much your property as it is anyone's else, and a good deal more so than some of the outsiders think. We want you not to forget that fact, and to make such use of the JOURNAL as you can. If you have ideas on the subject of its policy or its management, send them in and if they are good and pertinent, you may be sure we shall be glad to thank you for them. If you have any "kicks," make them direct to headquarters; just telling somebody else about it will not help us to set you right, or correct whatever may be wrong with us. We want you to feel that your individual interest is the interest of the Society and of the JOURNAL, and conversely, that the Society and its JOURNAL are of great personal interest to you. When you visit San Francisco, if you live elsewhere, call at the JOURNAL office; have your mail sent there; use the telephone; and if you want to consult any medical works or journals, the library is right there and you are more than welcome to make use of it; that is what it is there for. As we have said before, the only reason for the existence of a great organization is to serve; to be of

help and assistance to its members. We appreciate the kind things that have been said about the JOURNAL by many of the eastern medical press; and also the fact that some of them have borrowed our ideas and others our "copy." But that is merely incidental. What is essential is that you, as an individual member and owner of the Society and its JOURNAL, shall be satisfied with it and shall say or think pleasant things about it. The JOURNAL is a fairly good journal, but it is a long way from what we want it to be. Your aid and assistance, the aid and the help of each and every member of the Society, can alone make the JOURNAL exactly what it should be—representative of every portion of the State and of every interest of all its members.

"JOURNAL" AND MEDICAL NEWS.

The Publication Committee would be remiss in the performance of its duties if it failed to develop the possibilities of the JOURNAL as a news magazine for all things that interest the individual members of the Society. Here should be found recorded the notices of all marriages, with the full names of the contracting parties, and this should be in the JOURNAL as a piece of news, and good news for all the medical friends of the groom, and perhaps of the bride as well. Notices of deaths of medical men, with appropriate memoranda of their lives, should always be sent to the JOURNAL. It is the prerogative of this publication to record such, for here may often be found the most appropriate place for this notice of a man's works—one who had not striven for place or office, but had done the task that came to him as well as he was able. Notices of change of residence or office, or of removal from one town or city to another, should be included in those which are appropriate for mention, as should be notices of contemplated absences, with the name of the *locum tenens,* for these are all matters of medical personal news. To make the JOURNAL the medium for the dissemination of this news, it will be necessary that it have reporters all over the State, and in general the man most fit for such work is the Secretary of the County Society. This has been said before in these pages, and is repeated here to emphasize it, and to add that if the Secretary of any given county society is unable to do this it would be advisable for the society to notify the JOURNAL so that it could arrange for a reporter for these matters, which are somewhat outside the specific duties of a secretary. Moreover, the JOURNAL will supply all necessary stationery and postage for such communications, so that the tax will be only on the time of the reporters. In this connection it should be fully understood by the various stated and special committees of the State Society that one of the uses the JOURNAL may be put to is publicity of matters delegated to such committees and which they may desire to have brought to the direct attention of all the members of the Society. The Publication Committee asks the hearty coöperation of all in these branches of medical journalism.

FOOD OR POISON?

Once more the "Is-alcohol-a-food-or-a-poison?" question seems to be exciting a good deal of discussion in the editorial columns of the press of the country, both lay and medical. And in Europe, too, much has recently been written upon this subject. Tables of statistics, maddening in their extent and complexity, have been compiled and arranged, always with utter disregard to the fact, long since stated by an able man, that "nothing lies like statistics." Not but what many of the conclusions deduced from a careful study of the sociologic problem of the relation of drink to crime are undoubtedly true, to a greater or less extent. There can be no discussion on the statement that the brain suffers most from undue quantities of alcohol, and that to this cause may be assigned many of the crimes of an emotional character, misdemeanors, crimes against morals and offenses against the person; nor yet that many cases of insanity may be due to excessive indulgence in alcohol. But in the consideration of this question the personal equation is invariably disregarded; heredity and environment, unless they, too, have a direct bearing on the alcohol question, are disregarded. One may safely ask whether the personality of many of the individuals who are registered as criminals due to alcoholism is not such as to lead to the belief that the same, or similar crimes of an emotional character, would have been committed under other circumstances and under the excitement of stimuli other than alcohol? And of the 21.5% of male insane for whom the cause of insanity is given, by Dr. Robert Jones, as alcohol, it may be asked, are we safe in accepting these figures without revision and consideration of the factors of heredity, environment and personal idiosyncrasy? All the deductions from statistics thus far published seem to be misleading for the reason that the normal average is not considered; only the abnormal, underdeveloped or weak individuals are considered. For instance, it is absurd to apply the words of Dr. De Boeck, at the International Prison Congress, to the average individual who regularly drinks a moderate amount of wine with his meals, and is none the worse, and sometimes the better, for it: "Alcohol," he said, "is a violent poison to the nervous elements; destroys them when taken in large doses, or by a slow death when taken in small,

but often repeated, quantities." Such immoderate and untempered language can do no good; distorting facts to make ammunition for argument is never profitable, for sooner or later the whole argument is discredited.

"MEDICAL ETHICS."

The "Principles of Medical Ethics," which the "American Medical Association promulgates as a suggestive and advisory document," will be printed in full in the August number of the JOURNAL. It is well worth a careful reading by every physician, and represents the hard work and the energetic struggles of a number of men for several years. It is quite as interesting, as a document, in what it does not say as in what it says; in what it carefully ignores, as in what it definitely sets forth. To those who have been in touch with the history of the A. M. A. for the past twenty years, or even for the past ten years, it will have special interest. They may recall the attitude of that fine old campaigner, T. J. Happel, of Tennessee, when the A. M. A. met in San Francisco, and the annual resolutions of Dr. Ellis, of Los Angeles, and of Dr. C. A. L. Reed, of Cincinnati, with the perennial resulting conflict. At last, however, the obstructionists have ceased to successfully obstruct, and the road is now completely opened for that progressive march toward organized unification of all legitimate practitioners of medicine which is already begun. California stands fourth on the roster of the House of Delegates of the A. M. A.; let us see if we cannot do a little better than fourth in this procession of the States toward organization. It will not be difficult if each one will help.

COMMITTEE ON TUBERCULOSIS.

The following circular has been sent to every physician in California, enclosed with which was a return postal card on which information concerning the recipient's knowledge of the prevalence of tuberculosis was to be written, and the card returned to the committee. Every doctor in the State should feel it to be his *duty* to fill up and return the information card promptly and thus aid in the completion of this important work:

At the last session of the Medical Society of the State of California, the following committee was appointed to investigate the prevalence of tuberculosis in this State, and to make such recommendations to the Society at its next meeting as they may deem appropriate:

Dr. F. M. Pottenger, Los Angeles, Chairman,
Dr. Geo. L. Cole, Los Angeles,
Dr. Jno. C. King, Banning,
Dr. Geo. H. Evans, San Francisco,
Dr. Edward von Adelung, Oakland.

Dear Sir—I am directed by the above Committee on Tuberculosis to solicit your valuable coöperation in the important work which they have undertaken, and to request you to kindly return the enclosed postal card at your earliest convenience with the blanks filled out and your name affixed.

Thanking you in advance, I am

Sincerely yours,
DR. EDWARD VON ADELUNG,
Secretary.

TO ABOLISH SUB-STREET MANUFACTORIES.

The following resolution, which the JOURNAL prints in full, has lately been unanimously adopted by the San Francisco Board of Health:

WHEREAS, The observation of this department has demonstrated through years of experience that throughout the Chinese district the use and occupation of cellars as lodgings, living rooms and places for the production and manufacture of various articles is a constant and increasing menace to the health of this community, owing to the constant unsanitary conditions prevailing therein arising from the overcrowding of dark and ill-ventilated quarters and the incorrigible ill-usage of the occupants, therefore be it

Resolved, By the Board of Health, that no cellar or other apartment below the level of the street throughout the Chinese district should or shall be used as lodgings, living apartments or places of manufacture and production, and the health officer is hereby directed to enforce this resolution to the extent of his power and to obtain such legislation as may be necessary to its further and more complete enforcement.

Its import is plain and praiseworthy. Almost all of the Eastern cities have laws prohibiting the sweat-shop methods of manufacture, but the inhabitants there are in no greater danger from them than are the inhabitants of San Francisco from the sub-street Chinese manufactories and lodgings. It is not always a practice with physicians to trace back a contagious case to the source and time of the infection of the individual. If this were done it is not unlikely that many of them would be found to have been brought from our own Chinatown, for the Chinese are energetic manufacturers of many lines of goods, and particularly of wearing apparel. The JOURNAL is sure its readers have not forgotten that one of the ninety-five cases of plague in San Francisco was that of a clerk in a second-hand store south of Market Street. Endeavors to discover how he had become infected resulted in nothing definite, but that he did get his disease in some not obvious way from our Chinatown is a certainty. If this can happen in one instance it can happen in any number of instances, for the Chinese touch American life at so many different points that no man can tell who may and who may not be the next victim.

The Board of Health is to be commended for closing the most unsanitary of these Chinatown manufactories, and is, at the same time, to be urged to even more extended work along the same lines.

BOOK REVIEWS.

International Clinics: A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Opthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners. By leading members of the medical profession throughout the world: Philadelphia, J. B. Lippincott Co., 1903.

The present volume of this well-known work begins the Thirteenth Series, edited by A. O. Kelly, Philadelphia, and with the collaboration of such men as Osler, Musser, Murphy, Rotch, Ballantyne, and others as well known, the value of the book can be easily estimated. There are clinical lectures and reports of cases dealing with every branch of medicine, so that not one division of the profession alone is interested, but every branch. The manner of presentation in the form of lectures, profusely illustrated by plates and figures, makes the subject matter interesting and clear. Appearing every quarter, each volume contains the latest knowledge on the subject treated.

The present volume contains many interesting and valuable lectures. Only a few need be mentioned to readily understand the importance and character of these books. There is a clinical lecture by William Osler on Aneurism of the Descending Thoracic Aorta, illustrated by several plates and figures, with a list of cases appended.

Clinical Lectures in Surgery, by William Keen, Nicholas Senn and others. Treatment of Weak and Flat Feet by A. K. Shands.

In Pediatrics, Treatment and Prognosis of Convulsions in Young Children, by John Thompson, University of Edinburgh. This meager list gives an idea of the variety of the contributions and their value.

In Therapeutics, the discoveries during the last year, of new drugs and new uses for old drugs, are given.

The Progress in Medicine and Surgery is discussed with reports of new discoveries and questions which are occupying the medical and surgical world at the present time.

The book is well bound, contains over three hundred pages, with an index to same, and is a necessary addition to a medical library. By means of these International Clinics the reader is constantly kept conversant with the medical progress of this country and Europe.—H. P. H.

New York Medical Journal and **Philadelphia Medical Journal**, two among the best known and widely read weekly medical publications in this country, have consolidated under the title of the first named. Dr. Foster promises to not only keep up the tone of the metropolitan journal, but assures the readers of the Philadelphia publication "that their favorite periodical is not to be merely absorbed—snuffed out, so to speak. Though it loses its distinctive title, it will perpetuate itself as an integral part of our united publication." The publication office will remain at 66 West Broadway, New York, with branch offices in Philadelphia and Chicago.

We acknowledge the receipt of **A Materia Medica for Nurses:** By John E. Groff, Ph. G., Apothecary in the Rhode Island Hospital, Professor of Materia Medica, Botany and Pharmacology in the Rhode Island College of Pharmacy. Second Edition Revised and Rewritten: Philadelphia, P. Blakiston's Son & Co. Price $1.25.

DEATH.

Santa Ana, Cal., June 12, 1903.

Dr. Julius A. Crane died at his home in Santa Ana, Saturday, June 6, of heart disease. Deceased was a graduate of Charity Hospital Medical College, Ohio, 1870, and Medical Department Western Reserve University, Ohio, 1882. Dr. Crane was one of the pioneer physicians of Orange County; was one of the principal promoters in organizing the Orange County Medical Association; was a member of the State Medical Society and the American Medical Association. In 1900 he was appointed by Governor Gage superintendent of the Agnews Insane Asylum, which position he retained until his resignation, a few months ago, on account of ill health. Dr. Crane was a man loved and respected by all who knew him, especially by his brother physicians.

H. S. GORDON,
Secretary Orange Co. Med. Assn.

Eddyism in the Sixteenth Century—"Until it is learned that generation rests on no sexual basis, let marriage continue." ("Science and Health, with Key to the Scripture," one hundredth edition, 1896, p. 274.) If Mrs. Eddy had lived in the sixteenth century would she have endorsed the following decree of the Parliament of Grenoble, February 13, 1537, or would she, like most of us, have "winked the other eye"?:

"Considering the evidence showing that it is more than four years since the said Lord of Aiguemère has carnally known the said Lady of Auvermont; considering the defense of the said lady, declaring that, although she has not carnally known her husband, yet having imagined in a dream the person and contact of the said Lord of Aiguemère, she experienced the same sensations of conception and pregnancy that she might have received in his presence, and affirming that, since the absence of her husband, for four years, she has never had intercourse with any man, and that she has nevertheless conceived and borne the said Emmanuel, which she believes to have come about by the force of her imagination; considering the deposition of the Ladies of Albriche, of Pontrinel, of Orgeval, etc., affirming that such an accident may happen to women; that such things have happened to themselves and that they have conceived children of which they have been happily delivered, which resulted from certain imaginary intercourse with their absent husbands, and not from copulation; considering the attestation of the midwives and of the physicians; the court decrees that the said Emmanuel is and shall be declared the legitimate and true heir of the aforesaid Lord of Aiguemère, and charges the appellant to hold the said Lady of Auvermont as his wife in estate and honor." (*Gazette hebdomadair des Sciences médicales de Bordeaux.*) — *Philadelphia Medical Journal.*

At the banquet given by the Santa Clara County Medical Society on the occasion of its annual meeting, June 17, the menu was printed on a piece of linen bandage and the list of toasts on a strip of medicated oiled silk. The menu from "Bivalves, innoculated with bacilli appetizorii" to "swiss cheese—naturalized, sterilized and paralyzed" was medicinally as well as gastronomically indicated.

According to the London *Daily Mail's* correspondent at Hongkong, the spread of the plague in that city has reached an alarming stage; the worst since 1894. Two British officers in Hongkong and six men aboard the British battleship Oceanic were attacked by the disease.

THE NATIONAL BUREAU OF MEDICINES AND FOODS.

The joint committee of the American Medical and the American Pharmaceutical Associations, presents, in the following statement, the plan for establishing a National Bureau of Medicines and Foods which it has been appointed to consider. In order to aid the committee in coming to a determination as to the proper recommendations to be made to the associations, physicians, pharmacists and manufacturers are requested to express to the committee their opinions regarding the advisability of establishing this proposed bureau, and their reasons for approving or disapproving its establishment. The plan herewith published should be carefully read and considered before opinion or criticism is expressed. The subject is of the greatest importance and the scope and details as set forth in the plan under consideration should be fully appreciated. Kindly forward any criticisms, whether favorable or unfavorable, to either the chairman, H. H. Rusby, M. D., 115 West 68th street, New York City; or the secretary, Philip Mills Jones, M. D., 31 Post street, San Francisco.

NATIONAL BUREAU OF MEDICINES AND FOODS.

GENERAL STATEMENT OF PLAN.

It has seemed desirable to enumerate a few of the more important evils connected with the lack of standard in pharmaceutical preparations, adulteration of drugs, chemicals and food-stuffs, and the exceedingly complex condition of the many remedial preparations constantly offered to the medical profession.

The Pharmacopeia, in this country, is not a compulsory document. As a result, manufacturers are not obliged to follow it in the preparation of pharmaceuticals, and as a matter of fact, there is much variation in the strength of their products. Fluid and solid extracts, etc., and many pharmacopeial preparations, are made differently by different manufacturers, and often are not, as they should be, identical within reasonable limitations. The strength of tinctures made by different manufacturers has been found to vary as much as 70 or 80 per cent. This variation is such that prescriptions filled with one set of products will have a certain appearance and therapeutic effect, but the same prescriptions when compounded from products of a different manufacturer, will have a different appearance and therapeutic effect.

Chemicals are often adulterated or impure; even reagents marked "C. P." can, in most cases, not be relied upon. Lists of chemicals bought in open market and analyzed, with the adulterants and impurities commonly found, have been published from time to time and are accessible. The facts are so generally known that it is hardly necessary to enumerate them here. A few illustrations will suffice: Tincture of aconite, practically inert; aristol, containing 65 per cent of free alkali; phenacetin, containing 90 per cent of acetanilid; boracic acid, adulterated with three times its weight of borax; "C. P." zinc, containing iron and arsenic in appreciable quantities; hyoscyamine, as pure atropine, etc.

Adulterations of food-stuffs, the use of harmful coloring matters and preservatives, etc., are matters of common repute and have been noticed so many times in connection with proposed and urged national legislation, that only summary comment is needed. Cotton seed oil is commonly marked olive oil; coffee may be largely chickory; mustard is often not more than 10 or 15 per cent mustard, the adulterant being corn meal; black pepper is usually adulterated with from 50 to 80 per cent of foreign material; jellies and jams are seldom what they purport to be; salts of zinc, salicylic acid and the salicylates, borax and boric acid, and other preservatives are very generally employed and not infrequently they are used in harmful quantities. So common is adulteration of food-stuffs that there exists almost complete distrust in the public mind as to the purity or freedom from harmful preservatives, of most common food-stuffs. In the domain of prepared foods there is at the present time no means of determining their composition or suitability for the diets for which the makers recommend and advertise them. It has been found that many foods recommended for diabetics contained starch or sugar in considerable quantities, when the makers claimed absence of these ingredients for their products.

Many of the large number of special preparations that are put upon the market and strongly urged upon the medical profession, probably are good and have certain well defined uses. But the methods employed by the manufacturers are such as to induce a certain lack of confidence. The physician, as a rule, is not informed of the actual composition of the mixtures he is requested to employ, or if the composition is given it is vague, or at best there is only the statement of the interested party—the manufacturer—to rely upon. If a physician uses many of these preparations in good faith, and in good faith comments favorably upon them, in the medical press—supposing that his comment has not been "blue penciled" by the editor of the journal—he is in great danger of seeing his statement taken, and even garbled by the manufacturer, and extensively used for advertising purposes. This if his comment is favorable; if it be unfavorable the manufacturer ignores it entirely.

The prevention of adulteration in drugs, chemicals and food-stuffs, and the maintenance of standard in pharmaceutical preparations, should be a government function. For fourteen years effort has been made to secure proper national legislation for this purpose, but without result. The existence of the evils pointed out is recognized by all, and in view of the failure to secure the requisite national legislation, correction, or attempted correction, of these evils has been suggested through the medium of a proper commission or bureau, established by individual effort. Such a bureau could be formed by the association of professional men on the one hand and of those manufacturers who desire to put out only pure, standard and honest goods on the other hand. It is believed that such an association would be to the very great advantage of the public, and probably to those manufacturers who associated with such a bureau in its proposed work.

At first glance, and until the proposed plan is carefully studied, it would seem that such an undertaking would be impracticable. When carefully studied in detail, however, the plan, though of tremendous magnitude, appears to be so far practicable as to demand further study.

The following *(infra)* statement of the plan which has been formulated for the purpose of meeting present conditions, of adulteration, lack of standard in pharmaceuticals, confusion in identity of preparations and brands of medicinal mixtures, etc., is herewith presented for your very careful consideration. This statement has been made as short as possible, though

(Continued on page 244.)

OFFICIAL MINUTES OF THE SCIENTIFIC BRANCH

OF THE

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

AT ITS THIRTY-THIRD ANNUAL SESSION

HELD AT

HOTEL POTTER, SANTA BARBARA, APRIL 21-23, 1903.

Morning Session, April 21, 1903.

The meeting was called to order by Dr. Philip King Brown, chairman of the Committee on Arrangements, who introduced Dr. W. H. Flint of Santa Barbara, who delivered an address of welcome.

Dr. Brown then introduced Judge Aiken of Santa Barbara, who welcomed the Society on behalf of the Mayor and Chamber of Commerce.

The temporary chairman then introduced the President of the Society, Dr. F. B. Carpenter of San Francisco, who read the Annual Address of the President. (Published in the May number of the JOURNAL.)

Dr. Wm. Watt Kerr of San Francisco, then presented the Oration on Medicine, "Tropical Diseases in California." (Published in May number of the JOURNAL.)

Dr. Granville MacGowan of Los Angeles, presented the Oration on Surgery, "Prostatic Obstructions and Their Removal." (Published in June and July numbers of the JOURNAL.)

Dr. R. F. Rooney of Auburn, read the Report of the Memorial Committee which was referred to the Committee on Publication. Supplement to the report of the Memorial Committee was also read. (Published in the May number of the JOURNAL.)

It was moved that the report of the Memorial Committee for 1902 be published in the JOURNAL. Motion was seconded and carried.

It was moved by Dr. Harry M. Sherman that in adjourning we do so out of respect to departed members.

Minutes read and approved.

Adjournment 12:40 p. m.

Afternoon Session, April 21, 1903.

The meeting was called to order by the President at 2:10 p. m.

Report of the Committee on Medicine and Therapeutics: Symposium on Tuberculosis—Dr. Norman Bridge of Los Angeles, read a paper on "How Far Shall the State Restrict Individual Action of the Sick, Especially the Tuberculous?" (Published in the May number of the JOURNAL); Dr. E. von Adelung of Oakland, read a paper on "The Prevention of Tuberculosis"; Dr. F. M. Pottenger of Los Angeles, read a paper on "The Rational Treatment of Pulmonary Tuberculosis with Report of Cases."

These papers were discussed by Drs. W. H. Flint, Walter Lindley, C. M. Richter, J. L. Milton, E. Follansbee, G. L. Cole, J. C. King, G. A. Hare, E. von Adelung, W. T. Barry, J. H. Parkinson, W. A. Whitlock, K. Pischel, N. Bridge, F. M. Pottenger, Wm. LeMoyne Wills, E. G. Frisbie.

It was moved by Dr. Philip Mills Jones that the Legislative Body meet in the hall to-night instead of the smaller room chosen for that purpose. This motion was carried.

Dr. Wm. LeMoyne Wills of Los Angeles, moved that the "President appoint a committee of five to investigate the present condition of tuberculosis in California, the attitude the State should take in this matter, and report at the next annual session." Motion was seconded and carried.

Dr. P. K. Brown of San Francisco, read a paper on "Uncinariasis in California." Paper was discussed by Drs. George H. Evans, C. M. Richter, H. A. L. Ryfkogel. Discussion was closed by Dr. Brown.

Dr. D. Crosby of Alameda, read a paper on "The Recent Epidemic of Smallpox in California." Paper was discussed by Drs. W. T. Lucas, W. A. Clark, J. H. Parkinson, E. Follansbee, J. T. Gardner, E. von Adelung. Dr. Crosby closed the discussion.

Committee on Pathology and Bacteriology reported through the chairman, Dr. Wm. Ophüls of San Francisco, whose paper, "Pulmonary Edema," was read by title and referred to the Committee on Publication.

Dr. P. K. Brown read a paper on "Three Cases of Infection with Strongyloides Intestinalis; Autopsy Findings in One Case."

It was moved that the remainder of the afternoon programme be read this evening, following the meeting of the Legislative Body. This motion was seconded and carried. Minutes read and approved. Adjournment 6 p. m.

Morning Session, April 22, 1903.

The meeting was called to order by the President at 9:20 a. m.

Report of Committee on Nervous and Mental Diseases—The paper of Dr. H. G. Brainerd of Los Angeles, "Traumatic Neuroses," was read by title and referred to the Committee on Publication.

Dr. H. J. B. Wright of San Jose, read a paper entitled, "Was It a Case of Meningeal Hemorrhage, Hysteria, or Malingering?" Paper was discussed by Drs. H. G. Brainerd and J. H. McBride.

The President announced the names of the Committee on Tuberculosis as follows: Drs. F. M. Pottenger, G. H. Evans, E. Von Adelung, J. C. King, G. L. Cole.

Report of the Committee on Obstetrics—Dr. D. A. Hodghead, chairman of the committee, read a paper on "Rupture of the Uterus." Paper was discussed by Drs. G. L. Cole and O. O. Witherbee.

Dr. G. L. Cole read a paper on "Occipito-Posterior Positions." The paper was discussed by Drs. D. A. Hodghead and Z. T. Malaby.

Dr. E. N. Ewer of Oakland, had his paper read by Dr. Frank Adams, title "Prevention of Perineal Lacerations." Discussion was opened by Dr. Z. T. Malaby and followed by Drs. W. N. Sherman, F. P. Topping, D. A. Hodghead, J. Maher. The discussion was closed by Dr. Ewer.

Report of the Committee on Gynecology—Dr. G. B. Somers of San Francisco, read a paper on "Repair of the Perineum by the Continuous Removable Suture." Discussed by Drs. O. O. Witherbee, C. R. Krone, H. H. Sherk, and closed by Dr. Somers.

Dr. E. E. Kelly of San Francisco, read a paper on "Symptomatology and Pathology of Peritoneal Adhesions." Paper was discussed by Drs. J. Henry Barbat, A. S. Lobingier, W. I. Terry, C. D. Lockwood, H. Brunn, J. Rosenstirn, O. O. Witherbee, and closed by Dr. Kelly.

It was moved by Dr. J. H. Parkinson of Sacramento, that a scientific session of the Society be held to-night. This motion was seconded and carried.

It was moved that Dr. W. S. Thorne's paper be read at 2 p. m., as a special order of business. Motion seconded and carried.

Dr. J. H. Barbat of San Francisco, read a paper on "Intra-Abdominal Shortening of the Round Ligaments for Retro-Displaced Uteri." (Published in the May number of the JOURNAL.) The paper was discussed by Drs. G. A. Hare, E. E. Kelly, A. Lobingier, H. H. Sherk, H. Brunn, O. O. Witherbee, L. W. Allen, and closed by Dr. Barbat.

Minutes read and approved.

Adjournment 1:30 p. m.

Morning Session, April 22, 1903.

The meeting was called to order by Dr. C. C. Wadsworth, first vice-president.

Report of the Committee on Eye, Ear, Nose and Throat—Dr. H. Bert Ellis of Los Angeles, read a paper on "Headache as a Symptom." Paper was discussed by Drs. V. H. Hulen, W. E. Briggs, C. S. Nagel, J. Robertson, B. J. Powell, G. H. Powers, K. Pischel, and closed by Dr. Ellis.

Dr. Powers of San Francisco, read a paper entitled "A Case of Mastoid Disease with Mental Disturbance." Discussed by Dr. R. W. Payne.

Report of Committee on Genito-Urinary Diseases—Dr. George Goodfellow of San Francisco, read a paper on "Decapsulation of the Kidney for Bright's Disease." The paper was discussed by Drs. G. L. Eaton, Dudley Tait, J. Rosenstirn, L. Bazet, G. MacGowan, K. Pischel, D. Crowley, and closed by Dr. Goodfellow.

Report of Committee on Eye, Ear, Nose and Throat (continued)—Dr. V. H. Hulen of San Francisco, read a paper on "The Cure of Cross Eyes." Discussed by Drs. K. Pischel, W. E. Briggs, H. H. Sherk, E. von Adelung, C. Nagel, and closed by Dr. Hulen.

Dr. C. S. G. Nagel of San Francisco, read a paper entitled "A Contribution to the Macular Changes in Contusion of the Eye and their Forensic Significance." Paper discussed by Dr. R. W. Payne, and closed by Dr. Nagel.

Dr. R. W. Payne of San Francisco, read a paper on "A Case of Chronic Suppurative Disease of Both Frontal Sinuses, etc." The paper was discussed by Drs. R. D. Cohn and R. W. Payne.

Minutes read and approved.

Adjournment 12:50 p. m.

Afternoon Session, April 22, 1903.

The meeting was called to order by the President at 2:05 p. m.

Report of the Committee on Medical Legislation and Education—Dr. W. S. Thorne of San Francisco, read a paper on "Medical Education and the Work of the Board of Medical Examiners." (Published in the June number of the JOURNAL.)

It was moved by Dr. E. E. Kelly and seconded by Dr. Huntington that the report of Dr. Thorne be referred to the Committee on Publication, and that the acts of the Examiners be fully endorsed by the Society. This motion was carried.

Adjournment 2:30 p. m.

Evening Session, April 22, 1903.

The meeting was called to order at 8:40 p. m., Dr. Wadsworth presiding.

Dr. C. N. Ellinwood of San Francisco, read a paper on "Surgery in its Relation to the Restriction of Crime." Discussed by Drs. J. Rosenstirn, J. H. McBride, R. L. Doig, W. T. Lucas, O. O. Witherbee.

Report of the Committee on Gynecology (continued)—Dr. J. E. Cowles of Los Angeles, being absent, his paper on "Signal Benefit of Electricity in Gynecology" was read by title and referred to the Committee on Publication.

Dr. A. S. Lobingier of Los Angeles, read a paper on "Tuberculous Infection of the Adnexa and Peritoneum." Discussed by Drs. C. D. Lockwood, H. Brunn, J. Rosenstirn, and closed by Dr. Lobingier.

Dr. H. Brunn of San Francisco, read a paper on "The Relation of Degeneration of the Heart Muscle to Myoma of the Uterus." Discussed by Drs. D. Tait, H. Moffit, J. Rosenstirn and H. Brunn.

Minutes read and approved.

Adjournment 10 p. m.

Morning Session, April 23, 1903.

The meeting was called to order by Dr. Wadsworth at 9 a. m.

Report of the Committee on Pediatries—Dr. Geo. H. Evans of San Francisco, read a paper entitled "The Necessity of a Pure Milk Supply for Infant-Feeding." Discussed by Drs. F. Burrows, J. H. Barbat, F. M. Pottenger, K. Wilde, C. Van Zwalenberg, and closed by Dr. Evans.

Dr. W. N. Sullivan of San Francisco, read a paper on "Diseases Due to Faulty Nutrition." Discussed by Drs. G. A. Hare, D. Tait, G. H. Evans and closed by Dr. Sullivan.

The paper of Dr. E. W. Twitchell of Sacramento, "The Home Modification of Milk," was read by title.

Dr. J. Maher of Oakland, read a paper on "Diphtheria."

Dr. F. G. Burrows of San Francisco, read a paper on "A Few Illustrative Cases of Diphtheria." Discussed by Drs. G. L. Cole, J. H. Barbat, G. H. Evans, J. Maher and F. G. Burrows.

Minutes read and approved.

Adjournment 12:00 m.

Morning Session, April 23, 1903.

The meeting was called to order by the President at 9 a. m.

Report of the Committee on Hygiene, Sanitation and Climatology—Dr. C. M. Richter of San Francisco, read a paper on "A Comparative Study of the Climates of Southern California, etc." Discussed by Mr. Alex. G. McAdie of the United States Weather Bureau, San Francisco; Drs. W. Lindley, W. H. Flint, C. Anderson, F. Baker, and closed by Dr. Richter.

Dr. Mary B. Ritter of Berkeley, read a paper on "The Relation of the Physician to Preventive Medicine." Paper was discussed by Drs. C. R. Krone, G. F. Reinhardt, L. W. Allen, E. A. Follansbee, and closed by Dr. Ritter.

Dr. Dryer of Santa Ana, introduced the following resolution which was carried: Resolved, That the Secretary send a copy of Dr. Ritter's paper to the *Western Journal of Education*, San Francisco.

Dr. Philip Mills Jones read a paper on "The Proposed National Bureau of Medicine and Foods." The paper was discussed by Dr. J. T. Gardner.

Report of Committee on Chemistry and Physiology—Dr. C. R. Krone read a paper on "The Physiology of the Cell in its Relation to Therapy." Paper discussed by Dr. H. G. Brainerd.

The Report of the Chairman of the Committee on Medical Legislation and Education was read by title and referred to the Publication Committee. (Dr. Gibbons' report published in the June number of the JOURNAL.)

Minutes read and approved.

Adjournment.

Afternoon Session, April 23, 1903.

The meeting was called to order by the President at 2:20 p. m.

Report of the Committee on Surgery and Anatomy—Dr. S. Stillman read a paper on "Abdominal Drainage." Discussed by Drs. T. W. Huntington, E. E.

Kelly, E. Rixford, A. S. Lobingier, J. Rosenstirn, W. S. Porter, O. O. Witherbee, C. M. Cooper and closed by Dr. Stillman.

Dr. G. A. Hare rose to a question of privilege to introduce the following resolution:

Whereas, The Medical Society of the State of California has decided to publish a register or directory of physicians, and has established the CALIFORNIA STATE JOURNAL OF MEDICINE as the official organ of the Medical Society of the State of California; and,

Whereas, The expenses of the year will necessarily be large, be it

Resolved, That this Society call the attention of its members to the financial aid they can render the Society and themselves by patronizing such firms as make use of the advertising pages of the Society's publications, wherever such preference can be shown without disadvantage.

On vote of the Society this resolution was adopted.

Dr. N. K. Foster, Secretary of the State Board of Health, being present, was at this point requested to address the Society.

Dr. J. Rosenstirn of San Francisco, read a paper on "Surgical Interference in Hanot's Disease." Discussed by Drs. S. Stillman, D. Tait, W. W. Kerr, H. Moffitt, C. M. Cooper, T. W. Huntington, and closed by Dr. Rosenstirn.

Owing to illness, Dr. W. W. Beckett, who was present, asked that Dr. W. Lindley read his paper on "Appendicitis Surgically Considered with Tabulated Report of Fatal Cases" for him, which was done. Discussed by Drs. T. W. Huntington, J. H. Barbat, H. H. Sherk, C. D. Lockwood, A. W. Morton, C. Van Zwalenberg, L. W. Allen, W. S. Thorne, G. H. Evans, and closed by Dr. Beckett.

Dr. D. Tait of San Francisco, read a paper on "A Few Remarks on Gastric Surgery." (Published in the June number of the JOURNAL.) Discussed by Drs. J. H. Barbat, C. M. Cooper, W. I. Terry, A. S. Lobingier, and closed by Dr. Tait.

Dr. R. T. Stratton of Oakland, read a paper on "The Surgical Occlusion of Large Arteries by a Gradual Method; Its Relative Advantages, Together with an Experimental Inquiry as to its Feasibility." On motion duly seconded, the discussion on this paper was dispensed with.

A motion to adjourn at this time was lost.

Dr. Wm. LeMoyne Wills of Los Angeles, read a paper on "Un-united Fractures of Bones of Lower Extremity."

Dr. S. Stillman moved that the discussions on the remaining papers be omitted. This motion was seconded and carried.

Dr. A. W. Morton of San Francisco, read a paper on "The Injection of Paraffin for the Correction of Deformities."

Dr. J. T. Watkins of San Francisco, read a paper on "The Correction of Deformities Following Anterior Poliomyelitis by Subperiosteal Implantation of Tendons of Unaffected Muscles."

Drs. H. M. Sherman and W. I. Terry withdrew their papers.

Reading of the minutes.

Adjournment 6:30 p. m., *sine die*.

GEORGE H. EVANS.
Secretary.

Note—Through inadvertence, the name of Dr. G. F. Reinhardt, of Berkeley, was omitted in the list of members of the Board of Trustees elected at the annual meeting, April, 1903, in the official minutes published in the June JOURNAL, page 196.

REPORT OF COMMITTEE ON NECROLOGY, 1902.*

Read by R. F. ROONEY, M. D., Auburn.

To the President and Members of the Medical Society of the State of California: Your Committee begs leave to present the following report:

Another year has rolled by into history, and again we are called upon to commemorate our dead, and for a moment to pause and bow our heads in respect to those who have passed away. Death has struck high and hard, and our ranks have lost two of our Past Presidents, and four active members since last we met. He claimed some who were aged and full of honors, and others who were in the prime of their powers and manhood, before the promise of their opening lives could be fulfilled. But, as Horace said, many centuries ago:

We are all compelled to take the same road; from the urn of death, shaken for all, sooner or later the lot must come forth.

Therefore should we, the living, take daily thought that we may so live that if, perchance, we draw our lot to-morrow, we can face death with a brave front and a good conscience.

One by one the early leaders of the profession of this State are passing away. This year we mourn the loss of one of our greatest; a man of international reputation; of deep learning; of great mental force and ability; of burning professional zeal; of a lifelong devotion to duty; of a charitable heart; of cleanly and well-spent life; of indomitable industry and will-power; of an unexcelled philanthropy. I ask you all to bow in reverence to the memory of

Levi Cooper Lane, M. D., LL. D.

Surgeon and Founder of Cooper Medical College and the Lane Course of Medical Lectures.

From Dr. C. N. Ellinwood, President of Cooper Medical College, who made a memorial address at the public exercises held in the Auditorium of Cooper Medical College March 9th, 1902, the following information is derived:

Dr. Lane was born of orthodox Quaker parentage in Ohio, thirty-four miles north of Cincinnati, in 1830. Died in San Francisco, February 18th, 1902.

His early education was chiefly in private, being taught by his mother and also by his aunt, Ruth Cooper.

He worked on his father's farm and at intervals attended the common district schools; at the age of sixteen years he became a teacher and taught in the district schools of Butler County, Ohio, during the three succeeding years.

College Training.

Levi Cooper Lane at nineteen began his college education by a six months' term at Farmer's College, formerly called Cary's Academy, and later six months at Union College, Schenectedy, New York, in autumn and winter 1849-50, where he boarded himself and lived on twenty-five cents a week; but paid his college bills.

Union College subsequently conferred on him the degree of Master of Arts, and 1877 the distinction of LL. D.

Medical Education.

As customary in those days, he began his medical education by reading medicine, with his two uncles as preceptors, Drs. Esaias and Elias S. Cooper, and later he entered Jefferson Medical College in Philadelphia, where he studied one year and graduated M. D. in March, 1851, and later in the same year he was appointed an interne in the large New York State Hospital on Wards Island, where he continued an arduous student four years.

In 1855 he entered a competitive examination with thirty others for appointment as assistant surgeon in the United States Navy, and passed not only the highest in the class, but made a record there of his learning, quite remarkable in the history of the service.

He continued in the Navy his studies of medicine and surgery, and while the ship to which he was assigned was cruising in European waters he obtained

*Presented at the thirty-second Annual Meeting of the Medical Society of the State of California, San Francisco, April 14-17, 1902, and published pursuant to a resolution passed at the thirty-third Annual Meeting, Santa Barbara, April 21-24, 1903.

a leave, and passed two months in study at the University of Göttingen.

On shipboard it was his custom as a recreation to study Latin and Greek, in which he became proficient. He also taught himself German, French, Spanish and Italian languages, not only to read and write, but also to speak them.

Advent in San Francisco.

In 1861, having resigned from the Navy, he joined his uncle, Dr. Elias S. Cooper, in the practice of his profession and also as professor of physiology in the Medical College of the Pacific, located on Mission Street, which Dr. Cooper had started as early as 1858, the first medical school on the Pacific Coast. He also became associate editor of the *Medical Press.*

After the death of the uncle, Dr. Elias S. Cooper, in 1862, Dr. Lane continued the work in which they had mutually shared and happily conducted something more than a year.

In 1864, owing to the death of Dr. Cooper, and the absence of some others of the faculty, the Medical College of the Pacific suspended its teaching, and Dr. Lane with Drs. Gibbons, Morse and others, joined Dr. Toland in the school which he had recently inaugurated, the Toland Medical College.

The relationship, however, proved unsatisfactory, and in 1870, Dr. Lane with his associates in the faculty of the Medical College of the Pacific, reorganized that school, and with some subsequent changes in name, affiliation and personnel of the faculty, was finally refounded as Cooper Medical College, in 1882, by Dr. Lane, with liberal endowments in substantial buildings and his own guiding genius.

In 1875 Dr. Lane went abroad for two years of study in the schools and hospitals of Europe, and after a long term in London, he passed the examinations and was granted the M. R. C. S. Eng. degree, and later he passed some months in Edinburgh, Paris, Vienna and Berlin, and at the latter university he regularly matriculated as a medical student. He diligently applied himself in the pathological laboratory of Virchow and at hospital clinics, and after six months passed the examinations and received the Doctor's degree, "*summa cum honore,*" the highest honor which the Berlin University confers, and which honor carries with it the remission of all fees, which is extraordinary, especially in the case of a foreigner.

Returning to San Francisco, Dr. Lane with renewed energy, applied himself to practice and teaching, and the reorganization of the Medical College of the Pacific.

In 1882 his plans were matured, building erected, and without ostentation he founded Cooper Medical College as the successor of the Medical College of the Pacific, by an independent charter of its own, and named in grateful remembrance of his uncle, Dr. Elias S. Cooper.

His endowments to the college have been the valuable buildings of the college and Lane Hospital, and a fund for the perpetual maintenance of the Lane Course of Medical Lectures which is supplemental to the regular instruction of the college, by an annual course given by some eminent authority, in some branch.

Dr. Lane achieved an international pre-eminence as a surgeon and author, contributing many new operations to the surgeon's art, and many principles and procedures, aiding the progress of medical science.

His great experience in operations upon hare-lip, tumors of the neck and tongue, also his original operation of vaginal hysterectomy, which he did with remarkable dexterity, are among the permanent advancements made by Dr. Lane in surgery.

His contributions to surgical literature have been numerous and prized during many years, and his last volume, "Surgery of the Head and Neck," is a most exhaustive treatise of the surgery of that region of the body, and shows the practical results of his large experience and studious labor.

As a surgeon, his methods were systematic and direct, as was also his teaching—always without ostentation or display. He possessed in an eminent degree that high regard for his profession, and esteem for its individual members that gave him pleasure to speak well of them and to treat them with great kindness and consideration. His services to medical men in malpractice persecutions have been noted for their zeal and consistency. His labors and sacrifices in their behalf have been most cheerfully rendered, as no man has ever done before. His example deserves to be followed by all practitioners of medicine and surgery.

George Augustus Shurtleff, M.D.,

Was born in Carver, Mass., August 5th, 1819. He was a descendant of the sturdy Puritan stock which has left its mark wherever it has gone. He was educated in the common schools of his native town, and later attended Pierce Academy, an educational institution of note at that time. At the age of 18 he was teaching school at Plymouth, and at 22 was elected president of the school board, and as such superintended the whole school system of the town. In 1842 he began the study of medicine and graduated from the medical school at Woodstock, Vt., in 1845. In that same year he was married and began practice in Wareham, Mass. In 1849, under the influence of the wonderful tales from California, he decided to try his fortunes in the new land. He came by the ship Mt. Vernon, around the Horn, and landed in San Francisco, Oct. 2d, 1849. He made his way to the mines of Tuolumne County, but in 1851 he went to Stockton, where he spent the remainder of his life in the active practice of his profession.

The work by which his name will be remembered was done in connection with the care and treatment of the insane. In 1853 the first hospital for the treatment of the insane in this State, was located in Stockton, and for some years Dr. Shurtleff was one of the Board of Directors; and in 1865 he became chief physician and superintendent. For eighteen years he filled this position with honor to himself and satisfaction to the hapless inmates. During part of this time he was Professor of Mental Diseases in the University of California, and was recognized authority in this department. He was quite a fruitful writer and his essays were able and original. Dr. Shurtleff was a man of great force of character, with a tender heart, a charitable disposition, and was generous to a fault. He was President of this Society in 1872, and always had its interest, and that of the whole profession, at heart.

He died February 11th, 1902, full of years and honors.

Joseph Henry Wythe, M. D.,

Was born in Manchester, England, March 19th, 1822. His parents belonged to a sturdy Anglo-Saxon family, whose names are associated with the history of many places in Middle England. In 1832 his parents moved to Philadelphia, Pa., and although his opportunity for education in schools was meager, he became proficient in the natural sciences, Hebrew, Latin and Greek, through his own efforts, supplemented by private instruction. He entered the Methodist ministry at nineteen years of age, and while in charge of a small pastorate matriculated at the Philadelphia College of Medicine, from which he was graduated in 1850. In after life he was granted the degree of M. A. by Dickinson College, Carlisle, Pa.; Doctor of Divinity by the University of the Pacific; Doctor of Laws by the Willamette University, Salem

Oregon. He was a Fellow of the Royal Microscopical Society of Great Britain, and a member of the Victoria Institute of Philosophy, London England. He was a member of Admiral Porter Post, G. A. R., and Chaplain of the Masonic Veterans Association of the Pacific Coast. He started practice in the coal regions of Pennsylvania near Mauch Chunk, where he had a large and varied experience in surgery, in which he excelled. When the Civil War broke out he received his commission from Lincoln as Asst. Surgeon U. S. Volunteers, after a severe competitive examination in Washington, D. C., which was to select a special corps of surgeons for hospital supervision. His first assignment was to the entire charge U. S. Transport Hospital Steamship Atlantic, with 870 sick and wounded from Alexandria, Va., to New York. Then at the Trinity and Epiphany Hospitals, Washington; then to the duty of the organization of Camp Banks—as hospital camp of, at one time, 3000 men from prisons in the South—situated near Alexandria, Va.; he was then ordered to California and stationed at Sacramento. After a year's service there he resigned, and joined the California Conference of the M. E. church. But after the death of his eldest son, Dr. W. T. Wythe, in 1880, he resumed the practice of medicine in Oakland, Cal. For many years he was a member of the faculty of Cooper Medical College, and at the time of his death was emeritus professor of Microscopy and Histology in that institution.

He spent four years in Oregon, and during his presidency of the Willamette University, in 1865-68, organized the medical department of that body. He was a very skillful surgeon and, as far as known, performed the first operation for ovarian tumor on this Coast. As an investigator in histology and pathology he was original and a pioneer, having written the first text-book in America for the use of students in microscopy.

As a teacher his work and influence still live in the lives of his pupils, who hold his memory in affectionate regard. He was frequently referred to as "Luke, the beloved physician." He was a versatile and voluminous writer, and a contributor to leading papers and periodicals. Among some of his works are "The Pocket Dose-Book," that had fourteen large editions; "The Microscopist," the last edition of which was issued in 1880; "The Agreement of Science and Revelation"; "The Physiology of the Soul—a Discussion of Mental Phenomena"; "The Science of Life—a Text-Book for Chautauquan Students."

He was married July 6th, 1846, and celebrated his Golden Wedding, his wife (Miss Jane McHenry of Philadelphia) passing away two years later.

Dr. Wythe died October 14th, 1901, leaving three surviving children and several grandchildren, two of whom are physicians.

Full of years and of honors he has passed to his reward.

Charles Eben Cooper, M. D.

Was born near Sacramento, November 22d, 1860. While still a child, his father moved to San Francisco, and his education was acquired there. He graduated from Lowell High School, and then entered a clerical position and became an expert accountant. At this time he studied and mastered the German and French languages, and also studied pharmacy.

In September, 1886, he married, and soon afterward began the study of medicine at Cooper Medical College, graduating therefrom in November, 1889. He went to Europe and did post-graduate work in London and Berlin for two years. He then returned to San Francisco, and settled down for his life work, making surgery a specialty.

Dr. Cooper soon acquired rank among the first surgeons of the city. He kept in touch with the work of the greatest of the world's surgeons, attending the meetings of the International Congress of Medicine in Moscow and Paris. On his return from the latter place, in October, 1900, he took up his work with intense enthusiasm, but in the care of a large and exacting practice his health broke down, and he died of endocarditis, July 21st, 1901, at the early age of forty-one years.

In the death of Dr. Cooper our Society has lost one of its most progressive members, and the public a skillful and courageous surgeon. We grieve that he was so early taken from life's duties, which he was so well fitted to perform; but, as Mrs. Hemans has so well voiced it,

> Leaves have their time to fall,
> And flowers to wither at the north wind's breath
> And stars to set—but all,
> Thou hast all seasons for thine own, oh! Death.

William H. Wentworth, M. D.,

Was born in Nevada City, California, on the 2d day of February, 1864. His early life was spent there, and in the immediate vicinity. He received his earlier education in the public schools of his native town, graduating from the High School in 1882. He taught school for two years in the town of Washington, Nevada County, and then entered the University of California, taking the classical course. He was graduated A. B. on June 27, 1888.

He was married on the 3d of July, 1888, to Miss Inez Beard of Napa. For several years after his marriage he was principal of the Nevada City High School; going thence to Centerville, Alameda County, where he was principal of the Union High School, and instructor of Latin in the State University.

In 1893 he gave up teaching and entered Cooper Medical College, graduating in medicine on the 5th of December, 1895. His collegiate and professional education was the result of his own labor, and his energy and success in that direction may be judged from a statement he once made that "I came out of college with more money than I went in."

After graduation in medicine he went to Guatemala, there passing an examination in public, and in a foreign tongue, and in the teeth of the most virulent opposition on the part of the native practitioners. The Central American climate proving too trying for him, he left a well-established practice and came back to his native State, settling in Sacramento, where month as it succeeded month, brought increase of practice and reputation, more and more firmly grounded. At the time he was stricken with his fatal illness his outlook on life was the fairest, and all the things that he most desired seemed within his grasp.

He was president of the Wentworth-Igo Hospital, of which he was the founder; member of this Society and of the Sacramento Society for Medical Improvement, of which latter he was Secretary-Treasurer at the time of his death.

He died on the 11th day of September, 1901, leaving a widow and two young sons and a host of loving friends to mourn his early and untimely death.

Arch. Coombs Hart, D. D. S., M. D.,

Was born in China, Kenebec County, Maine, January 14th, 1869, and came to California early in life. He graduated from the University of the Pacific in 1889; from the Dental Department of the University of Pennsylvania in 1892, and from the College of Physicians and Surgeons of San Francisco in 1897; holding the degrees of Ph. B., D. D. S., and M. D.

He began the practice of dentistry in Pacific Grove in 1892, but in November of that same year removed

to San Francisco. After graduation in medicine he took up the active practice of that profession, and continued in it up to the date of his death, which occurred May 28th, 1901, at the early age of 32 years. He was married and leaves a widow and two children.

He was an active member of several medical and dental societies, and wrote a number of able papers. He was an expert microscopist and bacteriologist, and had a promising career before him. We mourn his early death, before his life's work was accomplished.

SYMPOSIUM ON PURE MILK SUPPLY.

THE NECESSITY OF A PURE MILK SUPPLY FOR INFANT FEEDING.*

By GEORGE H. EVANS, M. D.

Attending Physician St. Luke's Hospital and City and County Hospital, San Francisco.

IF EVERY infant were permitted the privilege of deriving its nourishment from the breast of a healthy mother, a paper with the above-named title would be unnecessary, it being universally conceded that breast milk is the ideal infant food and that no substitute can satisfactorily take its place. I desire to postulate that we have in uncooked, fresh, clean, uniformly stable milk, from a healthy herd of cows kept under sanitary conditions, when properly modified, the best substitute. That the production of such a milk is possible has been abundantly proved by the work that has been done in this direction in eastern cities, where the medical profession has considered the subject of sufficient interest in which to bestir itself.

It is undesirable to take the time of this body in discussing the myriads of infant foods placed upon the market by their respective enterprising manufacturers, for it is my conviction that they are all more or less harmful, but from the evidence of the enormous consumption of these nostrums, it is patent that too large a proportion of the profession derive their light in infant feeding from that omnipresent font of learning, the obsequious but tenacious representative of the baby-food manufacturer. Lest this statement may appear pedantic I wish to state that these preparations containing, as they do, a minimum amount of fat and an excessive amount of carbohydrates, many of them insoluble carbohydrates, are the principal etiologic factors in the production of rickets and other conditions of malnutrition. If this be true, then emphasis is given my statement regarding the desirability of cow's milk produced under the ideal conditions mentioned above, which I here desire to elaborate.

I have said that this substitute is to be found in a raw, fresh, clean cow's milk, unvarying in the proportion of its nutritive constituents, and obtained from a healthy herd.

1. The necessity of raw milk. Milk sterilized by heating to 212° F. is rendered difficult of digestion by reason of the fact that the casein is rendered less coagulable by rennet, and appears to be acted upon more slowly by pepsin and trypsin; a change takes place in the lactose, changing it into caramel; certain changes occur in the fat; certain natural ferments in fresh milk, believed to be of value in digestion, are destroyed, and some of the lime salts that are usually soluble, are converted into insoluble compounds. That such milk is productive of scurvy was shown by the American Pediatric Society's report in 1898, where of three hundred and seventy-nine (379) cases of scurvy in infants, one hundred and seven (107) of them had been on a diet of sterilized milk. While it is true that such sterilization destroys pathogenic bacteria, spores are not destroyed, and spore-bearing bacteria will develop in such milk at ordinary temperatures. As some of these bacteria act only on the proteids, the milk may not sour, and so its condition may not be recognized. Vaughn has shown that some of the toxins generated before milk undergoes lactic acid fermentation, are deadly, even in small quantities, and are not rendered innocuous even by intense degrees of heat.

The pasteurization of milk at from 140° to 157° F. does not present the objectionable features of sterilized milk to the same degree. The difficulties in the way of perfect technic in the average home, however, are such as to make proper pasteurization impracticable and well-nigh impossible. Tubercle bacilli have been known to live after an hour's exposure to a temperature of 149° F. The effect of pasteurization on caseinogen is at present questionable. Lactalbumen, the chief principle of the split-proteids, or whey proteids, coagulates at a temperature of 161.6°. To quote again from the American Pedriatic Society's report of 1898, twenty (20) of the three hundred and seventy-nine (379) cases of scurvy were fed on pasteurized milk. Sill reports one hundred and seventy-nine (179) babies fed on pasteurized milk, where 97 per cent showed signs of rickets and scurvy. These babies were in institutes where modification of the milk was properly carried out. Statistics multiply, but enough has been said to demonstrate the fact that the digestibility of cooked milk is questionable. Certainly, if clean milk can be obtained, the necessity of cooking it disappears.

2. The necessity of fresh food for infant feeding is beyond peradventure, and needs no more

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

elaboration here. One who has had any experience in infant feeding sees daily illustrations of the evidences of malnutrition and deformity as the result of prepared infant foods and condensed milk. The clinics in all our large cities abound with these little sufferers, made so by the commercial instincts of the food manufacturers, and too often by the laziness and ignorance of the physicians who prescribe them. These cases make a truly pathetic picture, and present a most eloquent and touching appeal for an amelioration of the causes which make such conditions possible.

3. To obtain a clean milk, unvarying in its nutritive constituents, is a matter of vital importance in the successful feeding of these little patients. The difficulties in the way of accomplishing this are, however, great, because cows are frequently unhealthy; they are dirty; milkmen are dirty; stables are filthy; dairies are unsanitary; the water supply is frequently polluted; cows are improperly fed; milk is not properly and promptly cooled and kept cold until delivered. Because of such conditions epidemics of infectious diseases are of frequent occurrence. Kober reports three hundred and thirty (330) outbreaks of infectious diseases spread through the milk supply. Estes examined one hundred and eighty-six (186) specimens of milk coming from all parts of England. The bacillus tuberculosis was present in eleven (11) cases. Pus was present in forty-seven (47) cases, muco-pus in seventy-seven (77) others; blood was present in twenty-four (24) specimens; streptococci in 75 per cent of all the cases. Eighty per cent of all the samples contained pus, muco-pus, or streptococci, and were unfit for use. Reed of Cornell, and Ward of the University of California, in considering the significance of the presence of streptococci in market milk, draw attention to the prevalence of mammitis in cows as constituting an important source of this infection. The insidious onset of this disease is responsible to some degree for the marketing of infected milk by dealers with innocent intentions. That such milk is responsible for a large proportion of the cases of infantile diarrhea there can be no doubt.

Believing that a number of cases of gastro-enteritis occurring among infants in my private practice, who were fed exclusively on modified cow's milk, were due to infected milk, I collected last winter a number of specimens of milk from different sources of supply in San Francisco, and submitted them to bacteriologic and chemical examination. The bacterial counts were made by Dr. H. A. L. Ryfkogel and the chemical examinations by Mr. Frank T. Green, chemist for the San Francisco Board of Health. The specimens were taken during cold weather when the bacterial count would naturally be low. They were received in sterile vessels, immediately placed on ice and so kept until examined. The lowest bacterial count was 14,400 per cubic centimeter, the highest 1,500,000, with an average of 223,800. The highest count was from a specimen purchased from a corner bakery, such depots, by the way, being very popular for securing an extra supply of milk when the regular supply for the baby runs short. It was learned on inquiry that this supply came from San Joaquin and Contra Costa Counties, and was brought to the city by boat, once in twenty-four (24) hours. It is not intended to infer from a report of these counts that they are conclusive estimates of the cleanliness of the dairies represented by them. Such would manifestly be unfair, because so many conditions, some of them temporary, influence the number of bacteria found in a given number of specimens submitted for examination. I believe, however, I make a consistent statement when I say that an average of 223,000 bacteria per cubic centimeter, taken from a number of specimens collected at random from our largest and most reputable dealers, calls for serious consideration as to the causes of such pollution. An explanation is easily forthcoming when we consider the condition of the farms as found when I visited a number of them. The stables, with one exception, were foul, ill-ventilated, dark and ill-smelling, with lofts overhead for the storage of feed. No attempt was made to groom cows or clean udders. No pretense at cleanliness among the milkmen was observed. No medical supervision over the workers was observed, nor was there any veterinarian inspection of the herds. Drainage was, as a rule, bad. In one instance the entire drainage from barns, houses, privies, etc., was received in a ditch which flowed by an unprotected well, from which the entire water supply was obtained. In another it flowed through the pasture and was accessible to the cows. In only one was the manure carted away regularly. In one it was simply dumped on a pile just outside the barns, where it lay for a year before being removed. These dairymen are not deliberately and maliciously polluting their milk. They are anxious to give a pure product, and the pathetic part of it is that they believe that they are. They are uneducated regarding the production of milk under sanitary conditions. In all of the farms that I visited some attempt was made to sterilize pails and cans, either by ordinary washing or washing and dipping into boiling water. These pails are then handled by dirty milkmen, left standing a varying length of time in the stables exposed to all the filth with which they inevitably come in contact.

Some plan of aerating and cooling the milk is adopted by all of them, usually by means of letting it flow over zinc tubes, through which water at ordinary temperature is forced. This of course, cools it to from 60° to 70,° a temperature en-

tirely insufficient for the inhibition of bacterial growth. In some instances the cooling process consists in merely plunging the cans into a vat of cold water. None of these dairies bottle milk at the farms. Some of them do so at their supply depots in the city to satisfy a small demand for bottled milk, where a few have fairly well-equipped apparatus for aerating and cooling their already infected milk. Butter fat varied in the specimens examined from 3.2 per cent to 8.7 per cent, a sufficient variation to make a proper modification impossible. The majority of them exceeded 4 per cent. A few of them bore evidence of being watered. One yielding only 3.2 per cent fat, had a specific gravity of 1,029 and a total solid percentage of only 11.38 per cent. This specimen gave a bacterial count of 255,000, and was procured from one of our most reputable dealers. No examination for chemicals was made. It is not intended in this paper to enter into a consideration of the prevalence of the use of chemicals, or their effects on digestion. The San Francisco Board of Health has had considerable trouble with dairymen over this question, but it is strange that the condition which made the addition of chemicals necessary has heretofore received no consideration.

Such, in brief, are the conditions surrounding the production of this food product for the San Francisco market, and the presence of such conditions have made the sterilization of milk necessary.

The greatest step in advance in recent years, however, in the successful feeding of infants has been the demonstration of the fact that a practically pure, sterile milk can be obtained, and thus do away with sterilization. To Dr. Henry L. Coit of Newark, N. J., belongs the credit of having demonstrated the fact to the American profession that pure so-called "certified milk" can now be obtained by instituting proper hygienic precautions regulating the production and care of the milk. Several Eastern cities have established Milk Commissions by their county medical societies, and have successfully solved this problem. The plan of procedure is similar in all of them, and for purposes of illustration I abstract a recent report of the Commission of the Philadelphia Pediatric Society. The Commission, consisting of five members, holds itself in readiness to examine milk from dairies desiring this examination, and to certify to the good quality of milk which comes up to the standards fixed by it. The Commission selects a bacteriologist, a chemist and a veterinary inspector. The bacteriologist procures a specimen of milk without previous notice to the dairy, which he tests for the number and nature of the bacteria present in it. He also makes a microscopic examination for pus cells. This examination must be made at least monthly. Milk free from pus and injurious germs, and having not more than 10,000 germs of any kind or kinds to the cubic centimeter, is considered up to the required standard of purity.

The chemist procures and examines the milk for the percentages of fat and total solids, and for the specific gravity. He also tests its chemical reaction, and examines it for the presence of foreign matters, or of chemicals added as preservatives. Standard milk shall range from 1.029 to 1.034 specific gravity, be neutral or very faintly acid in reaction, contain not less than from 4.5 per cent to 5 per cent fat, and shall be free from all contaminating matter and from all addition of chemical substances or coloring matter. Richness of cream in fat shall be specified and shall not vary more than 1 per cent above or below the figure named in selling.

The veterinary inspector at regular intervals and without previous warning inspects the cleanliness of the dairy in general, the care and cleanliness observed in milking, the care of the various utensils employed, the nature and quality of the food used, and all other matters of a hygienic nature bearing upon the health of the cows and the cleanliness of the milk, including also as far as possible, the inquiry into the health of the employees on their farms. He also sees that the cows are free from tuberculosis or other diseases. The fees of the experts are paid by the dairymen at the time of the examination. Any dairy, the milk of which shall be found to be up to the required standard shall receive a certificate from the Commission. Milk furnished by the dealers to whom certificates have been issued shall be furnished to consumers in glass bottles hermetically sealed in a manner satisfactory to the Commission. In addition to the sealing and as a guarantee to the consumer that the examination has been regularly conducted, there shall be pasted over the mouth of the jar, or handed to the consumer with every jar, a copy of the certificate issued with the date thereof. Four producers have met the requirements of this Commission, and the work of the experts since the first appointment of the Commission in December 1898 has been most satisfactory. The attempt to keep the fat content near the required standard has been eminently successful, the widest variation being 7 per cent.

This has been a great drawback in the proper feeding of infants in San Francisco, the fat in the specimens collected by me varying from 3.2 per cent to 8.7 per cent. The reason of this is because no attention is given to the scientific feeding of the herds; every dairyman having his own ideas, but none of them, as far as I could learn, endeavoring to observe any ratio between the proteids and the carbohydrates and fats.

Of the dairies holding certificates from the Philadelphia Commission probably the best equipped one is the Walker-Gordon farm, situated at

Plainsboro, N. J., which I had the pleasure of inspecting about a year ago. The barns are constructed with perfect ventilation and with absolutely water-proof floors. They have neither cellars nor lofts. They are fitted with trolleys for the conveyance of feed and manure, and are furnished with water and live steam for cleansing purposes. The cows are carefully selected American grades. They have passed the tuberculin test for tuberculosis, and they have been quarantined for the possibility of other diseases. They are under the immediate care of a competent foreman and have the periodical attention of an expert veterinarian. The water used for washing, rinsing, watering cows, and for all other purposes, is drawn from a protected well. This well is isolated from buildings, and is more than one thousand feet from the farmhouse. It is forty feet deep. The well is curbed and lined with brick set in Portland cement, to the bottom; it is protected from surface seepage with an extra wall on the outside for seven feet in depth, and is cemented inside to the water line. It is fenced in with a high fence for fifteen feet on every side; it is inaccessible to animals and to all the employes, except the superintendent. All the buildings used for milk production and care are carefully drained by means of glazed earthenware, tight tile pipes, trapped and ventilated. The cows are maintained in health; they eat the best food and drink pure water. Their food is selected for them and fed to them with scientific care. They are not pastured at any time. The water is brought in pipes and drank from vessels, sterilized whenever occasion requires. The cows are kept clean. They have abundance of air, exercise and sunshine. A local physician, approved by the Commission, has supervision of the health of the men that are employed on the farm and of the help in the boarding house. Slight sickness among the help receives instant examination by the physician, who is responsible to the Commission. Before and during the process of milking, the attendants are required to wash thoroughly in the presence of the superintendent. They wear white clothing, which is sterilized freshly before each milking with moist steam in sterilizers used only for this purpose. The superintendent also supervises all process of milking, and guards against any contamination of the milk by the attendants. The milk is taken from the barn to the milk-house as soon as it is milked. It runs into a porcelain receiving tank and from this through a filter, into a mixing tank and over a specially constructed cooler that reduces it to a very low temperature. The whole time occupied in the process is not more than five minutes for any given body of milk. The exposure of the milk in the milk-house is reduced to the smallest possible time compatible with mixing, cooling and bottling. The air of the milk-house is clean, and is changed by an exhaust process, new air being admitted after it is filtered and washed by a spray. Special precautions are taken to exclude flies. The walls and floors of the house are water-proof. The dairymen wear specially sterilized clothing. They do not visit the barns or do work upon the farm. The milk-house is fitted with two large sterilizers. All packages received from without are sterilized before being washed, and again after rinsing and before filling. All cans, tanks, coolers, separators, milk-pails, milk-stools, shipping cases and other articles or appliances which come in contact with the milk, are previously sterilized. The jars and bottles, with their covers, are sterilized before use. The time allowed for transportation from the farm to the laboratory is less than two hours. The superintendent is a man who has been trained for this work, and has special qualifications for his position. He supervises all operations in the barns and milk-house, carries out all the rules laid down by the experts employed by the Commission and, besides, makes daily examinations of the chemical and bacteriological condition of the milk.

These are ideal conditions, and are necessarily productive of high-priced milk. Milk from this farm sells in New York City at 15 cents per quart.

The public needs a great deal of education on this subject. They demand good milk and they demand cheap milk. They know nothing of the germs in the milk that they neither see nor taste, and when their babies become infected, dentition is usually considered the etiologic factor and the attending physician is oftentimes responsible for this, for the gum lancet has not yet entirely had its day as a therapeutic measure in infantile convulsions. The duty of the medical attendant is, however, manifest. His patients should be instructed that cheap milk is not good milk, that sweet milk which contains an abundance of cream is not necessarily clean milk. The average layman does not to-day object to the use of diphtheritic anti-toxin because of its price, when he recognizes in it a life-saving measure; nor will he object to the cost of pure milk for feeding his infant when he is educated by the medical profession to the fact that it also is a life-saving measure. The demand for a high-priced milk must, however, be a limited one in any community, and with a large proportion of the people it will have to be used as a medicine rather than as a food for general household consumption.

This work must be taken up by the medical profession, and preferably, through the agency of the county medical society in the community. Milk Commissions should be established in all cities. The better class dairymen (and by these I mean those dealers who have control over their own farms, not those who act merely as middlemen) should be invited to co-operate. A small

proportion of them will be able to bring their milk up to the required standard, and the profession must encourage the successful ones by doing everything in their power to inform the public that pure milk is worth more than unclean milk. This will be difficult at a time like the present, when the tendency with this industry, like most others, is toward large syndicates assuming the control of the enterprise. Under such conditions it will be impossible to attain supervision over the quality of the supply. The dairyman will naturally be slow to co-operate and assume the additional expense necessary, unless he can be assured of the existence of the demand. The responsibility, therefore, clearly rests with the medical profession, for to them, and to them only, must we look for the education of the public in this matter.

CONCLUSIONS.

1. Uncooked milk is necessary for the successful artificial feeding of infants.

2. Uncooked milk, to be a harmless food, must be clean and free from pathogenic bacteria and chemicals.

3. Such milk can be obtained only by medical supervision over the details of production, together with regular veterinarian inspection of the herds.

4. Such inspection can be most successfully accomplished under the auspices of the county medical society in the community.

5. The demand for such milk must be accomplished by the instruction of the public by the medical profession.

REFERENCES.

Holt. Text Book of Diseases of Infancy.
Sill. *Medical Record*, Dec. 27, '02.
Rotch. Report of the British Medical Association, 70th Annual Meeting.
Koler. *American Journal Medical Science*, May, 1901.
Estes. *Annals de Médecin et de Chirurgie Infantice*, 1900.
Judson and Gitting. Infant Feeding, *Archives of Pediatrics*, March, 1902.

DISEASES OF INFANCY DUE TO FAULTY NUTRITION.*

INFANTILE RHACHITIS, INFANTILE SCORBUTUS AND INFANTILE ATROPHY.

By WILLIAM NORBERT SULLIVAN, M. D., San Francisco.

THE symposium of which this paper is a part has for its object the consideration of the nutrition of the infant. The subjects of proper milk supply and milk modification have received attention. It remains for me to present the result of a study of the diseases of infancy which are associated with faulty nutrition.

If we investigate the etiology of rhachitis we find that a variety of causes are described and furthermore, that we may almost take our choice for, as Strumpell says, "Although the clinical and anatomical phenomena of rhachitis have been often and accurately investigated, the true cause of the disease still remains entirely unknown." He speaks of the lactic acid theory and of the influence of phosphorus and lime. He refers to Oppenheimer's malarial theory and to the theory of heredity, the proof of which latter, he says, is lacking. Osler refers to the geographical and racial conditions operative in the causation. In Vienna and London, he says that 50 to 80 per cent of the children presenting at clinics are rhachitic. A starchy diet, too much cow's milk, and indiscriminate feeding; but, he continues, something more is required beyond these, for the children of healthy parents who have ample quantity of proper food may become rhachitic. He says that there is no evidence that the disease is hereditary, but there is probably a fetal form.

As the real issue of this paper is to show the relation of improper feeding to the diseases considered, I have stepped aside from the multiplicity of theories and searched for support of the view which maintains that improper feeding is the chief etiologic factor in the production of rickets, scurvy and marasmus.

Dr. Charles O'Donovan, in giving a representation of the relation which food maintains to the production of rickets, cites a case which is illustrative of the manner in which a great many rhachitic subjects are fed in infancy. He says: "The mothers are impressed with the idea that the food for the child must be 'strong' and consequently give the child anything but milk, just as soon as this is possible, and have as a result gastro-intestinal irritations, and in the majority of cases rickets." One child was brought to him 14 months old, weighing 9 pounds. It was rhachitic, extremely feeble and undeveloped, without teeth. Yet the child had been born healthy and had grown as long as the mother had nursed it, and not until it was given all sorts of food did it become rhachitic. At about five months it began to eat potatoes and cabbage, and any other vegetable or meat that happened to be on the table and soon, much to the surprise of the family, it began to show signs of distress. "Teething" was accused of the trouble and it had been "teething" ever since without the development of a single tooth. When the woman was asked if she gave the child milk she said that milk always disagreed with it and was refused. This was not so, for when the child was taken to the hospital and placed on a milk diet it improved forthwith.

In reviewing the papers presented in the last twenty years on the relation of improper feeding to the production of rickets, we cannot help but note that the element of fat seems to bear a relation to the causation of the disease. It is claimed that rhachitis does not exist in Japan and the explanation advanced as to the reason of this is, that the Japanese have always eaten plentifully of the fats and oils of fishes, the blubber of

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

whales, the eel and the loach. Among animal experiments we find that Guerin gave puppies a diet of meat for months. They became rhachitic. Other puppies which were suckled did not. At a meeting of the British Medical Association held in August, 1888, Dr. W. B. Cheadle read an instructive paper on rhachitis, in which he said that feeding of young animals in the Zoological Gardens strongly supported the theory that deficiency in animal fats and earthy salts is the most important factor in the production of rickets. In the Zoological Gardens young monkeys were taken from their mothers and fed with a diet of vegetables and fruits. They be came rhachitic. Two young bears were fed with rice, biscuits, and occasionally with lean meats which they licked, but rarely ate. They died of extreme rhachitis while still young. Cheadle states that 20 litters of lions died successively of rhachitis, and the next brood were fed on cod liver oil, purified bones and milk. The addition of fat and bones to their diet caused a change, and eighteen months later, when the young lions were last examined, they were apparently healthy.. J. Lewis Smith concludes from this that the more the causation of rhachitis is elucidated by observations on man and experiments on animals, the stronger is the evidence that the cause is dietetic.

Garrod and Fletcher in England, have studied "The Maternal Factors in the Causation of Rickets," and state that many other causes than dietary ones are active in the etiology. They enumerate eight chief ante-partum causes and three chief post-partum causes, apart from errors in dietetics, which appear to them to influence the origination of the disease in the infant. They cite a case in each instance and in each instance aver that the food was beyond reproach, consisting of either breast milk or sound dairy milk, diluted. But as against this position, we may justly follow the work of pediatrists in this country who affirm that sound dairy milk is not always a sound food for the child, as it not only varies in its consistency, but also in the character of its constituents as compared with woman's milk. Dr. Sherman in a paper read before this Society in 1896, shows the difference by Leeds' analysis:

	Sound Dairy Milk.	*Woman's Milk.*
Reaction	Feebly acid	Persistently alkaline
Specific gravity	1.0297	1.0313
Bacteria	Always present	Absent
Fats (average)	3.75	4.13
Lactose "	4.42	7.00
Albuminoids "	3.76	2.00
Ash "	.68	.2

Leeds sums up as follows: On an average human milk has one half of one per cent more fat than average sound dairy milk and two and one-quarter per cent more lactose. On the other hand, it has one-half of one per cent less mineral matter and what is more important, but two per cent of albumenoids, or about one-half as much as cow's milk. In each case the albuminoids consist of casein and lactalbumin. The former is precipitated by acid and the latter by heat, but the coagula of cow's casein are large and coarse clots, those formed by woman's casein are finely divided, soluble flakes. Moreover, there is about four times as much casein as lactalbumin in cow's milk, and about twice as much lactalbumin as casein in woman's milk.

It is from considerations of this kind that we are impressed with the value of Rotch's formulæ whereby the nutrition of the individual child is made an object of study and the component parts of the dietary are prescribed according to the absorptive and assimilative powers of the child. Therefore the treatment of rickets is chiefly dietetic. Drugs may be useful. Cod liver oil is the remedy among medicinal agents on which we mostly rely. Phosphorus is of doubtful utility.

SCURVY.

Infantile scorbutus is a disease whose history is quite interesting to the student of medical literature because, although the disease has undoubtedly existed for a very long time, or as long, probably, as the other infantile diseases, its true nature escaped observation until a very recent period. While undoubtedly the disease was known in England, it was confounded with rickets and designated acute rickets and called Barlow's disease. But in 1894 Northrup and Crandall, in a most interesting and instructive paper, pointed out that there is probably no such disease as acute rickets and that cases presenting symptoms known under the head of acute rhachitis are either rickets associated with scorbutus, or they are genuine scurvy, unaccompanied by any other disease.

Scurvy may appear at any period of infancy or early childhood, but is most common between the 9th and the 14th months of life. It is characterized by lesions of a hemorrhagic nature, due probably to diapedesis, especially subperiosteal hemorrhages, hemorrhages into the muscular tissues, into the skin and mucous membranes.

Lack of fresh food is the most important cause. The use of proprietary foods and condensed milk produce more scurvy than all other methods of feeding. Anæmia and malnutrition are accompaniments; a peculiar sallow complexion is a feature.

Scurvy is frequently superadded to rhachitis, but in a large number of cases no evidence or rickets is present. So-called acute rickets is, in most cases, and probably in all, rickets complicated by scurvy. Pain is a constant symptom. It develops early and is usually intense. One of the peculiar features of the disease is a varying degree of immobility of the extremities which is fre-

quently so marked as to simulate paralysis. This pseudo-paralysis disappears with the subsidence of the scorbutus.

Subcutaneous hemorrhages, as well as hemorrhages from the cavities of the body are common. The condition of the gums is characteristic. They are purplish, soft, spongy and bleeding, and frequently show decided ulcerations. When the teeth have not been erupted, changes in the gums are either slight or entirely absent. Painful swelling of the lower extremities is the most constant symptom; the upper extremities are rarely involved. The thigh is affected more frequently than any other region.

Children suffering from scurvy commonly present the following symptoms: Anæmia, intense pain on motion, spongy and bleeding gums, swelling of the lower extremities, usually of the thigh. There may be also purpura or echymosis, discharge of blood from the various cavities of the body and pseudo-paralysis.

Scurvy, when untreated, is a very fatal disease; when recognized and properly treated a rapid and complete cure is effected. The result of antiscorbutic treatment is, in fact, one of the most certain means of diagnosis.

Scurvy may be mistaken for rheumatism, stomatitis, rickets, sarcoma, osteitis and infantile paralysis. Scurvy is a dietetic disease and must be cured by dietetic treatment. Fresh milk, beef juice and orange juice are the most effective remedies.

MARASMUS.

Infantile atrophy is a disease in which extreme atrophy of all the muscular tissues takes place without, as far as we are able to make out, any disease of other organs. The cause is unknown. It may be dependent on grave intestinal disturbances of toxic or organic origin.

Pathologically the lymph glands have received some attention in this disease. They are found somewhat enlarged at times. The mucous and submucous tissues of the intestines show atrophic changes.

The symptoms are those of starvation. Emaciation is the prominent symptom. The appetite is lessened, the temperature is normal or subnormal. The pulse is weak and the respirations are generally normal. There is vomiting and the weight diminishes and the infant may die from exhaustion.

The diagnosis is from general tuberculosis, from which it is diagnosticated by its response to good food. In the ordinary cases of starvation which result from improper food, or from lack of food, a diet, carefully adapted to the age of the child, is soon followed by rapid improvement. The prognosis is bad, especially during the first year of life.

The treatment consists in such modification of the milk as to promote intestinal absorption and without drugs. After experimenting with a number of cases Rotch modified the milk thus: A mixture was given which contained a low percentage of fat, a high percentage of sugar and a moderate percentage of proteids.

Fat	.45
Sugar	6.00
Proteids	1.00
Lime water	5.00

After the infant has begun to gain in weight, he increases the percentage of fat, but for a number of weeks he does not raise the percentage above one or two. When the infant has once begun to gain steadily, the power of absorbing fat is rapidly increased and the percentage of fat, sugar and proteids can then be somewhat raised thus:

Fat	3.00
Sugar	7.00
Proteids	2.00
Lime water	5.00

Conclusions: In concluding I may say that, as it was my intention to deal only with the relation of improper feeding to these diseases, I have not attempted a description of the interesting pathology of rhachitis, of its symptomatology, of its prognosis or of its diagnosis, as these subjects are wide in their scope and require time for their consideration. Furthermore, I have not given much attention to the part played by proprietary foods in the production of these diseases because their variation from woman's milk is so great that they have received consideration from nearly every author who has written on these diseases. The part played by fat in its relation to rhachitis and to infantile atrophy seems to me deserving of notice.

Of late Kassowitz and Stoeltzner have given considerable study to the cellular pathology and biology of rhachitis, in search of its true etiology. Ritterhain, Pfeiffer and Henoch have studied the disease in its relation to heredity. But whether the true light will be thrown on the etiology from the realms of cellular pathology and biology, or whether heredity plays more of a part in the causation than we have heretofore granted to it, the fact remains the same, that improper feeding bears a definite relation to the production of rhachitis, as it does also to infantile scorbutus and to infantile atrophy.

THE HOME MODIFICATION OF MILK.*

By E. W. TWITCHELL, M. D., Sacramento.

IT SCARCELY need be remarked that of a given number of artificially fed infants, by far the greater percentage will be nourished with cows' milk modified at home.

*Read by title at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

Particularly is this so outside of the larger cities, while in the smaller towns and in the country laboratory milk is out of the question. This applies with increased force to our sparsely populated country of the Pacific Coast. For this reason, artificial feeding means with the most of us the home modification of milk.

The increased importance accorded this subject is most impressed upon the younger generation of practitioners, when referring to the earlier writers of the last century, and one need go no further back than the sixties. J. Lewis Smith devotes three pages in the body of his work and six pages in the appendix to artificial feeding. Compare this with a twentieth century text-book, and even allowing for the padding in pernicious vogue, mark the difference.

Commensurate with the increase in amount of attention devoted to the subject is the success attending the procedure. The artificially fed infant who lived in New York of the middle of the last century was almost certainly doomed. "It generally ends in death, preceded by evidences of faulty nutrition. More than half of the New York spoonfed infants who enter the summer months die before the return of cool weather unless saved by removal to the country. In the country * * * the majority live and * * * artificial feeding appears to be nearly as favorable as wet-nursing."

This is the key note of the whole question. The pediatrist of the middle of the nineteenth century had not yet learned to be clean. In the country he was so, perforce, to a great degree, so the country babe lived where the city babe died, the victim of invisible and unrecognized filth.

There was nothing remarkable in this when we consider the appalling rapidity with which bacteria of all sorts grow in so excellent a culture medium as milk. If the bacteria could be banished, artificial feeding would be robbed of almost all of its terrors. Organic chemistry is still too feeble to help us to a humanized casein, but a babe with a comparatively sterile digestive tract can struggle pretty successfully with a casein foreign to its needs, even if in excess, while the child whose mucous membranes are sown with putrefactive bacteria through to the submucosa, is powerless.

In most cases accurate modification of milk is out of the question at home. It requires daily analysis of the supplied milk, and an exactness in the addition of ingredients which we shall not find in the mother or the nurse—we shall have to be satisfied with an approximate accuracy. But I do not believe that a high degree of exactness is necessary. The daily variations of modified milk are not apt to be greater than the normal daily variation of proportions in human milk, and that is not found detrimental to the child.

Attention must be paid chiefly to the milk supplied, with respect to its cleanliness. Where certified milk is to be had, the problem is pretty easily solved. The physician has then only to see that the milk is properly treated after reception into the house. In case, as is commonest, certified milk cannot be had, the best procedure is for the physician personally to inspect dairies until he finds one whose methods satisfy him, this inspection to be repeated at certain intervals. When thus satisfied with their manner of handling the milk, let him insist upon milk from that dairy alone.

The cream supply is attended with more difficulties for two reasons. In the first place, the fat value of cream as supplied by the dairy is very variable, say from 10 to 20 per cent. Manifestly no accurate modification can be done with cream which varies so greatly, and whose proportions we cannot know without daily analysis.

But this is not all. If milk is often swarming with bacteria, this is ten times more so with cream, particularly in warm weather. Cream as sold by the dairies should be let alone absolutely.

The only way out of the difficulty is to use the top milk of the selected dairy. By using Chapin's or Cuthbert's table, one can arrive at a fairly constant proportion of fat in the milk mixture.

There remains but one ingredient whose purity it is generally regarded as necessary to insure, and that is the sugar. When milk sugar is used it must be used in considerable quantities, and the purity of the article is really of moment. A pure milk sugar can be obtained and if it be decided to use lactose the guaranteed article should be insisted upon. If there be any doubt in the matter at all, it is certainly better to use cane sugar, which is to be had almost anywhere in a high state of purity.

The food value of milk sugar is not by any means settled, and it is undoubtedly better, so far as we know at present, to use good cane sugar in preference to impure milk sugar.

Supposing that one has a certificated milk with a minimum number of colonies of bacteria to the cubic centimeter, and that the milk has been kept at the proper temperature until it reaches the home, if it now be put into a refrigerator this milk may be used without further precaution than sterilization of the vessels into which it may come, and of the other ingredients of the mixture.

Unless such milk be obtainable, each portion for feeding must be partly sterilized before use. Absolute sterilization means a temperature of 100° C. for several hours, a longer time than is practicable under ordinary circumstances, and longer than is necessary when the milk is to be used immediately after preparation. If a supply is being prepared for a voyage, absolute sterilization is requisite.

It hardly need be remarked that sterilization can do no more than kill the germs contained in the milk. The poisonous products of bacterial

growth are unaffected and, after decomposition of milk has proceeded past a certain point, no amount of sterilization will make that milk wholesome. This point needs especially to be impressed upon the nurse or the mother of the child.

A moot point is the diluent to be used. Shall we use water, gruel of various cereals, or prepared infant foods? The casein of cows' milk is so different from human casein that none but the more robust infant can digest it undiluted or unchanged.

Can the necessary, or the nearest approach to the necessary, modification be attained by simple dilution, or can it best be done by the aid of suspended starch? Rotch is uncompromisingly in favor of the use of water, asserting that the alleged mechanical separation of curds by starch particles is a fallacy. There seems to be good reason for this opinion, and taking into consideration the ill effects of starch likely to be produced in the intestinal tract, starchy diluents had in general better be rejected.

The prepared foods hardly need consideration. They play the same role in infant feeding that is filled in drug therapy by the ready-made prescription: That is, they are used by the indolent or careless physician who finds the preparation of a milk mixture or extemporaneous prescribing too much of a tax on his time and his brain.

Dilution with whey, on the other hand, has much to recommend it. Whey is procurable without great trouble, need be no more a carrier of infection than the milk from which it is obtained, and the whey proteids are more like the proteids of human milk than those of whole milk.

In the struggle for a sterile milk with a not too large proportion of assimilable proteids, another factor is frequently forgotten: That is, the fat content. Some infants will not tolerate the usual fat proportion, whereas, with the fat almost entirely removed, they flourish.

The relative acidity of milk depends largely on the amount of bacterial growth therein, hence the more carefully the milk is handled, the less will be the necessity for addition of lime water, which is probably the most advantageous form in which to add alkali.

So no constant amount of lime water for addition can be stated.

Condensed milk demands more than a word. The widespread use of this preparation, the ease with which it can be prepared, and the apparently happy results make it difficult of attack.

There is no doubt that occasionally a child who has rejected every milk mixture and every food previously, will suddenly improve when put upon condensed milk, and the improvement may be lasting. But, there is likewise no doubt that the resisting power of condensed milk-fed infants is low, the fat is flabby, and the predisposition to rickets and scurvy is increased many fold. Condensed milk must not be used. The excuses for its use, ease of preparation and cheapness, are worse than none.

In fine, our dependence must be on cows' milk, sterile as nearly as may be, diluted, sweetened, salted, and enriched with added cream.

We must be assured of a clean milk from the dairy, and the manipulation of this milk after reception into the home must be such that it is offered to the child as nearly sterile as care can make it. Herein lies the success of the home modification of milk.

PROSTATIC OBSTRUCTIONS AND THEIR REMOVAL.*

By GRANVILLE MacGOWAN, M. D.

Professor of Diseases of Skin and Genito-Urinary Organs, College of Medicine, University of Southern California.

ORATION ON SURGERY.

(*Continued from page 208.*)

I wish to emphasize that it frequently is not the largest or most prominent tumors, those which are the easiest felt by the finger, that form impediment to urination. It sometimes happens that large tumors easily shelled out are removed from both sides of the urethra and a few small nodules situated directly beneath the mucous membrane of the bladder neck are left, because they are not deemed of importance or because they are not easily enucleated, and afterward it is found that the patient cannot empty the bladder, or can do so only very imperfectly, because the real obstruction was not taken away. In order to obtain a perfect and lasting result, all tumors should be removed, for any which are left may readily grow and become larger. This is very well exemplified in some bladders which are in my possession, where nodules which at the time were deemed too small to bother with subsequently grew to proportions which could ultimately have caused obstruction.

PERILS AND ACCIDENTS OF THE OPERATION AND UNSATISFACTORY RESULTS SOMETIMES FOLLOWING IT.

When one who has had no experience in these operations reads statements reporting a long list of cases operated without deaths and all perfectly cured, which, of course, I take to mean the ability to empty the bladder entirely and with convenience, it would seem that the procedure is always easy of execution, that there are no dangers, and there need never be any anxiety about the outcome as to life, and the ultimate perfect restoration of the power of voluntary urination. Do not be deceived by such reports. Some people die in the hands of every operator, and misrepresentation with regard to the dangers, dif-

*Read at the Thirty-third Annual meeting of the State Society Santa Barbara, April 21-23, 1903.

ficulties, and annoyances will not help to popularize these operations with the medical profession.

In the suprapubic operation, one has to deal always with the possible dangers of urinary infiltration, and, at times, with profuse hemorrhages. Where there is great removal of tissue, it may be followed by the formation of very irregular cicatrices about the base of the bladder, with sometimes such deformity of the bladder neck that continuous leakage occurs, necessitating the use of a rubber urinal. Where the tumors removed are fibroid, or are dense and adherent it is necessary to bite them off piece by piece by rongeurs or serrated scissors. The pressure of the knuckles of the hand used for enucleation or of the handles of the rongeurs often destroys the vitality of the fatty tissues of the abdomen about the cut, or the cellular tissue in front of the bladder, or sometimes the bladder wall itself, producing necrosis and subsequently sloughing, and the wound is slow to heal or sometimes leaves a fistula, which requires one or more subsequent plastic operations to close.

The leakage from a suprapubic wound is always very disagreeable and annoying to the patient. Even after the voluntary power of urination is restored the fistula may remain open for days or for weeks, and occasionally a portion of the urine will escape from it when the bladder is distended. I have seen men much more troubled about this, and much more miserable over it, than they were when they could not urinate at all, and were suffering intensely every minute of the day from obstruction.

The difficulties of the perineal operation are not usually great. Its perils consist in:

(1) The making of an irregular tear in the bulbous urethra by the assistant who holds the staff thrusting it awkwardly and violently through the bulb. This gives rise to very prolonged healing of the urethral wound, and sometimes to the formation of a fistula difficult to repair.

(2) When the prostatic capsule is entered and an attempt made to enucleate its contents, no line of cleavage can be found and persistence in an effort to excochleate may lead to a tearing away of the organ from the pelvic tissues making room for urinary infiltration and subsequent infection.

(3) If such fibroid growths are removed piecemeal with scissors and rongeur, it leaves a very irregular channel, which subsequently tends to contract, making resistance to the entrance of any instrument, and interfering in part, or in whole, with the expulsion of the urine, so that the individual is no better off than before. In one case a Bottini had subsequently to be done before the power of urination was restored.

Los Angeles, March 13, 1903. I. C. S., 68, farmer. Patient of Dr. Beckett; has led catheter life for three years, and had frequency with difficulty in urinating for a year previous. Urethra passable frequently only to a stiff catheter loaded with a mandrin. Frequency about ninety minutes.

Operation—Perineal prostatectomy. It was believed that the prostate would excochleate readily, but it was so irregular and dense intra-urethrally that it was suspected to be cancerous; no line of cleavage could be found. Attempts to enucleate on either side resulted in opening the tissues of the pelvis outside of the capsule. Being without the Bottini, a suprapubic incision was made, and as much of the rubber ball-like substance removed by rongeurs as was necessary to provide a channel sufficient to admit two fingers. Drained both ways by metallic perineal tube and DePezzer's suprapubic. Tubes removed on fourth day. Perineal wound healed on eighth day. Suprapubic wound closed on the eighteenth day, but no urine passing it was reopened and a small DePezzer tube reinserted. On April 2d a Bottini was done under Nervanin; cocaine anesthesia. Three incisions, each three centimeters long, were made on the floor and each side of the commencement of the urethra.

April 17th: Voluntary urination; good full stream, which empties the viscus. Much slough has passed away in the bladder washings.

Cure practically finished April 18th; suprapubic tube removed April 20th. All urine passing by natural passage in a full stream.

The perineal operation may appear to be perfect and the real obstruction be intravesical, requiring a suprapubic operation as in the following case:

S. D. C., Nov. 16, 1899. Sent by Dr. E. C. Buell; age 69. Occupatiou, mercantile agent; diagnosis, prostatism; history, attack of retention 1895. For four or five years previously, increased frequency and difficulty in passing urine. Between 1895 and the present time he has had a number of attacks of retention with symptoms of uremia and was once confined to bed for six mouths. Has led continuous catheter life for about a year.

Examination—External organs healthy. Prostate greatly enlarged, the right side more than the left. The growths appear to be adenoid. Seminal vesicles healthy. Bladder capacity 300 cc. Residual uriue 180 cc.

January 4, 1899. Being very weak and unwilling to be cut, the patient submitted to a Bottini operation under local anesthesia, 60 cc. of a 5 per cent Nervanin solution for the bladder and a few drops 10 per cent cocaine solution for posterior urethra. One posterior incision 3½ cm. Time 3 minutes; current 50 amperes; very slight hemorrhage; recovery without incident. On January 30, able to pass 4 ounces of urine with each effort. March 22d, passing urine easily at intervals of two or three hours. Uses catheter once at night relieving himself of 4 ounces.

He continued in this condition until June, 1902, and became strong, able to work and enjoy himself. Then there being increasing difficulty in the passage of the catheter and an increased residual, he consented to a perineal prostatectomy. This was done with some difficulty, the growth being very dense and difficult to excochleate. The portions that were easiest to remove were those about the scar of the Bottini burn. The bladder had a very deep bas-fond back of the urethral pillars. Weight of prostatic tissue removed 6 grammes. Calculus removed at same time weighed 4 grammes. This operation was done by Murphy's method. It left a very hard scar,

which, by its contraction, obstructed the urethra and was very painful. At the time of operation my finger entered the bladder, and was swept well around the lower part of its neck, and could not detect any further obstruction, with the exception of a very small teat to the left and below the urethral orifice. It was not believed that this would lead to any difficulty, and it was let alone. The operation did not give the patient any relief. In September he was really worse off than he had been in June. I succeeded in cystoscoping him, and found there were two obstructive elements. One was the contraction of the perineal scar, and the other a moderate sized tumor, springing from the upper right hand segment of the vesical neck, very irregular and connected with the prostate. A perineal incision was made and the hardened cicatrix removed where it pressed upon the urethra. The bladder was opened suprapubically and the prostatic growth removed with great difficulty by rongeurs. Recovery was uneventful. Perineal wound healed in ten days. The healing of the suprapubic wound was delayed by reason of the violence done to the tissues by using the rongeur. He was passing water naturally, and his wounds were closed at the end of three weeks. He empties his bladder completely, has not to rise more than once at night; has become strong and vigorous and is able to attend to his business continuously.

(4) There is also danger of tearing into the rectum, an accident which happened to me once in a cancerous prostate, and which is liable to happen to any one operating in a very dense or fibroid prostate.

Through the perineal wound small, or even large, pieces of the prostatic tissue may escape into the bladder in the process of enucleation. This, to a certain extent, may be overcome with the large nodules by catching each one with a well curved tenaculum and drawing it down into the external wound before it is finally loosened from the capsule, but the very small ones are liable to get lost, and if allowed to remain in the bladder would form nuclei for stones. On three occasions I have had such pieces escape into the bladder, but I have always been fortunate enough to know it and to recover them without making the suprapubic cut. Much time was lost, and the operation was greatly prolonged by reason of this accident.

June 29, 1899. J. B., 70 years, merchant; complains of burning in the bladder and increased urinary frequency. Urine very acid. No albumen, sugar, pus or casts. External genital organs normal. Prostate slightly enlarged on right side. No residual urine.

July 26th. After massage of prostate, urine passed was centrifuged and examined microscopically. Uric acid sand, and oxalate of calcium crystals, surrounded by clumps of pus.

August 5th. Has taken cold and prostate is edemmatous and prominent. This attack was accompanied by right-sided epididymo orchitis. Later he became very comfortable and remained so until 1902, when, in May, after seeing a relative operated for prostatic obstruction by me, he bethought himself of his former attack and had a surgeon in a neighboring city examine him. He found he was carrying more than a pint of residual urine. The surgeon gave him a catheter to use, with which he very promptly infected himself. His prostate had grown to a very large size. After suffering a few weeks he decided on operation. The enlarged glands were enucleated without difficulty, but one piece slipped away and got into the bladder. It required a long time to recover it. His external wound healed in ten days. The urine passed by the urethra naturally when he was lying in bed after twelve days, but he could not retain it when walking about for nearly six weeks. This was due to the undue stretching of the bladder neck by the tumor having grown into it directly from both sides of the urethra, which interfered very greatly with the restoration of its tonicity. Within three months he retained his urine perfectly and his bladder empties itself to the last drop. He sleeps all night and only urinates four or five times during the twenty-four hours.

This case illustrates very nicely commencing prostatic obstruction, its development and cure.

(5) When the tissues of the bladder have been greatly bruised by sharp stones before the operation, or where the urine is hopelessly alkaline, with all that condition implies, all wounded surfaces within the bladder and sometimes within the prostate become covered with phosphatic incrustations. These are subsequently cast off, or may have to be loosened by curettage somewhere between the third week and the third month. In one case I had to reopen the suprapubic wound on this account and took out a whole handful of sloughs covered with such deposits. In another case, very recently, such sloughs came away through the perineal wound which reopened apparently from this cause, and subsequently closed itself. Another case in the hands of a colleague, I am informed, discharged such sloughs for many weeks.

(6) Dangerous hemorrhage is not common by the perineal route, unless the case is complicated by a tight stricture in the perineal urethra requiring the severing of the bulb in the course of the operation or unless the bulb is carelessly cut in making the necessary opening in the urethra; but secondary hemorrhage does occur. I have seen it now in two cases during the past year, each followed an attack of tenesmus, that as near as I could discover arose from an organized clot which had formed on one side of the bladder neck, and after the packing was removed, and the perineal wound practically closed upon the restoration of the power of urination, this clot was swept into the urethra, and, being firmly attached, remained there, caused tenesmus. The forcible contraction of the bladder neck upon the clot loosened it from its vessel and a hemorrhage then took place into the bladder, filling it to distension in less than two hours.

In the first case I was able to remove these clots and stop the hemorrhage by breaking them up with a lithotrite in a 15 per cent solution of hydrogen dioxide in normal salt solution and subsequently pumping them out with a Chismore evacuator. In the second case the bleeding could not be controlled, and I had to do a suprapubic cystotomy under the most unfavorable conditions,

and pack the urethra from within and without the bladder with gauze, steeped in solution of adrenalin chloride. This packing had to be so tightly placed that it was followed by a slight slough in the rectal wall which has been very difficult to repair.

(7) There is another danger which I have discovered in these perineal operations where one or more small nodules are imbedded directly in the tissues around the internal urethral mouth, or where there are nodules buried beneath the mucous membrane directly inside the urethral neck. and their removal is absolutely necessary, it may be followed by the tearing out the whole posterior urethra.

This is a very disagreeable accident, but its occurrence is not necessarily destructive of the ability of the bladder to functionate properly.

April 3d, 1898.--Patient of Dr. Cannon: W. S., 69 years old. Has led a painful continuous catheter life for four years, which for a few months past has been almost unbearable. Prostate greatly enlarged. Bladder base tense. Sounded for stone, result negative. Cystoscoped and three large calculi found in a diverticulum. Left ureter dilated and pumping purulent urine. April 5, litholopaxy. Weight of stones 45 grammes. Confined to bed for twenty-four hours. In a week he was able to pass some urine and catherterize himself at reasonable intervals without pain.

February 12, 1902. Removed prostate by median perineal route at his request. There has been great pain recently and catheterization is no longer possible. The lateral enlargement came away quite easily, but set about the bladder neck just under the mucous membrane, were a lot of small nodules like pearls in a ring. After much patience I succeeded in removing five or six of these. There were two of considerable size beneath the tissues of the bladder in front of each ureteral opening. Suppuration had taken place in these and I opened them through the floor of the bladder with my long capsule knife and enucleated them, but they were very adherent, and using too great traction upon one with a volcellum I turned the bladder neck inside out, removing it with the tumors surrounding it and part of the sphincter muscle attached before I recognized it. To say I was astounded and dismayed would not express my feelings. I placed a No. 40 F soft rubber drainage tube in the opening and as the wound closed reduced the calibre until a No. 16 F was used. The perineal wound was kept open until the bladder made reservoir for 240 cc. of urine while the patient was prone. He leaked a while after getting out of bed, but in seven weeks he was urinating clear urine 250 cc. at a time, and had full control of his bladder at all times and a full sized sound could be passed to his bladder.

At the time of the operation I removed about sixteen stones and the left ureter was so dilated that I could easily introduce the end of my index finger into it.

I have seen him this very day and he is well, and states he has no difficulty in holding his urine for four hours, does not have to rise at night, and can project the stream fully three feet from his body.

(8) In making the perineal incision in very large stout men with deep, strong perineums, great care should be exercised to keep well away from the rectum with the skin cut. I was very much embarrassed once, where I had closely approached the sphincters, but had not severed them at all, to subsequently see the anterior fold of the anus drawn an inch and a half well up into the perineal wound by the action of the levator ani muscles, and every time there was a passage from the bowels the wound became filled with fecal matter, though there was no cut in the rectum itself.

BENEFITS OF THE OPERATION.

It has been a striking fact that sexual power if present, usually remained after operation, and if absent has been often restored. This is directly contrary to the teaching of the Necker school. but has also been the experience of Bryson and Goodfellow.

In the great majority of the 49 prostatectomies and 29 Bottini operations which have been performed by me the results have been ultimately good. In a few they have been almost perfect. None have been positive failures. In all, the general conditions of the individual have been improved. All of my operations have been done on persons who had been leading a catheter life at the time of the operation. It seems to me unreasonable when one considers the general and local conditions existing in such people that the surgeon should be expected to make them over again. A few have dribbled for a time, but not any permanently. All eventually came to hold a reasonable amount of urine, and I do not know of any who ultimately had a residual of more than 50 cubic centimeters. I have never yet seen one of these cases put in a condition where it was not necessary to urinate at least four or five times during the twenty-four hours, and I do not look for this. I think that when one takes an old man who cannot urinate at all, whose urine is foul, whose bladder is distorted, its walls thickened and undergoing fatty degeneration and perhaps contains one or more sharp irritating stones, whose ureters are dilated and whose kidneys are filled with pus, who is weak and sallow and uremic, and who cannot sleep because he has to pass a catheter every fifteen to twenty minutes and this catheter is inserted with great muscular effort, causing much pain and frequently bleeding, obtaining only a few teaspoonfuls or tablespoonfuls of urine at each urination, and one operates him, clearing the membranous and prostatic urethra and the bladder neck from the tumors pressing upon them, giving a chance for the urine to find its way out of the bladder in a natural manner, and afterward that man can hold from 120 to 150 cc. of urine at a time and expel it at intervals or three hours or two hours, and has not to exceed 30 to 45 cubic centimeters of residual urine; if his dyspeptic symptoms disappear, his appetite returns, his cheeks take on the color of life, his eyes become bright again, his mental faculties become lucid and his kidneys secrete a

fair amount of urea, I think a very exeellent surgical operation has been performed, the results of whieh are sufficiently gratifying to justify the risks of failure which were taken in attempting it—results whieh do not require apology to the patient, his friends or the medical profession by the operator.

This, gentlemen, is the history of 65 of my cases that have received the above benefit from the operation of prostateetomy or prostatotomy. Of the operation of prostatotomy by the Bottini method, I have not the time to tell you what I believe to be its full value, I only repeat what I have already intimated to you several times in this paper, that it possesses a very real surgieal value. There are eertain eases of prostatic obstruction in whieh it is to be preferred and will give better results than any cutting operation. In any case where the sufferer keenly dreads the knife, as so many millions of our fellow-men do, he should, if he will accept the responsibility, always be given the benefit of the Bottini operation, where he will not submit to a prostatectomy. The surgeon who pretends to special skill in diseased eonditions at the bladder outlet shows no wisdom by sneering at this operation and refusing to acquire skill in its applieation. I know on this ground I am supported by the two genitourinary surgeons who, I think, have at their disposal and directly under their control a greater amount of genito-urinary material than any others in Americe, I mean Drs. Orville Horwitz, of the Jefferson Medieal College, and Hugh M. Young, of the Johns Hopkins University, both of whom are practical men with exeellent faculties for observation.

REPORTS OF MEDICAL SOCIETY MEETINGS.

HUMBOLDT COUNTY.

The regular meeting of the Humboldt County Medical Society was held at Eureka on Tuesday evening, June 9. The president, Dr. R. Felt, presided and there was a good attendance both from Eureka and outside towns. A constitution and by-laws, approved by the Secretary of the State Society, was adopted, and the following new members elected: Drs. S. McL. Doherty of Fortuna, F. O. Pryor of Scotia and G. N. Wood of Blue Lake.

Considerable time was devoted to the discussion of business matters pertaining to the practice of medicine in the county. The question of fees was discussed and a committee, consisting of Drs. McLaren, Gross and Chas. Falk of Eureka; McKinnon of Arcata; Doherty of Fortuna, and Ross of Ferndale, was appointed to draft a fee bill which, while not binding on the members would serve as a guide to the profession throughout the county.

Dr. C. O. Falk reported a case of hydatiform mole with following history: Patient called at his office April 30th complaining of having had irregular hemorrhages from uterus for some weeks; family history negative; previous health good; had three healthy children, youngest two and a half years old; no miscarriages; menstruation regular until January of this year; missed January and February, and concluded she was pregnant; March 10th she began to flow slightly and continued to do so almost steadily until April 30th. She was very anemic. Examination revealed an enlarged uterus reaching nearly to umbilicus; smooth and freely movable cervix, soft, os patulous. She was ordered to bed and given calomel in divided doses till bowels moved, followed by saline. May 1st condition unchanged; May 2d found patient had been flowing more freely during the forenoon and it was decided to dilate cervix sufficiently to allow digital exploration of uterus, which revealed a grape-like mass in uterus. A part of this was pinched off with placental forceps for examination. The part removed was made up of little cysts about the size and color of gooseberries. The vagina was thoroughly tamponed and patient was sent to hospital where, on May 3d, the uterus was emptied with finger and curette. The mass removed was made up of little cysts similar to sample first removed. There was little hemorrhage and recovery was uneventful. June 6th the patient presented herself at doctor's office feeling perfectly well. Examination showed uterus normal in size. Specimen removed from uterus was exhibited to the society.

Paper was read by Dr. Felt, on amenorrhea, stating that while amenorrhea was a symptom only, it was of such frequent occurrence that it had come to be considered almost as a disease itself. Its pathology was the pathology of the underlying condition or cause. Amongst its many causes were shock, pregnancy, exposure to cold, lack of exercise, closure of cervical canal or vagina, imperfect hymen, atrophy and degeneration of ovaries, rudimentary development of uterus and ovaries. In diagnosing amenorrhea, it must be distinguished from retention of menses due to atresia of cervical canal, imperfect hymen, etc., where menstruation occurred, but no flow was seen. Prognosis depended upon whether or not the cause could be removed. In amenorrhea due to absence or non-development of ovaries or uterus prognosis was, of course, bad. Where it was due to imperfect hymen or closure of cervical canal, removal of these conditions would generally cure the amenorrhea. As to treatment, if due to any diseased condition of system, treat the diseases. Stenosis of uterus canal could be treated surgically or with electricity. The most obstinate or troublesome cases were those with undeveloped ovaries or uterus, but in these cases much could be accomplished by general hygienic treatment, hot baths and douches, and electricity locally applied.

Discussed by Drs. Wallace, C. O. Falk, Perrott, Drysdale, McLaren, Gross and McKinnon.

G. N. D.

ORANGE COUNTY.

The Orange County Medical Association held its regular monthly meeting at the residence of Dr. Wm. Freeman, Fullerton, Tuesday, June 9, with a good attendance. The paper of the evening was read by Dr. Pottenger, of Los Angeles, subject, "Tuberculosis."

H. S. GORDON,
Secretary.

SACRAMENTO COUNTY.

The June meeting of the Sacramento Society for Medical Improvement was held on the 16th, at the office of Dr. Hatch, the subject for the evening's discussion being "General Paresis," opened by Dr. Twitchell.

JOSEPH W. JAMES, Secy.

SAN FRANCISCO COUNTY.

At the regular monthly meeting of the San Francisco County Medical Society the program was as follows: "Some Clinical Chest Cases with Fluoroscopic Reports," by C. M. Cooper, M. D.; "The Value of Blood-Pressure Observations in Surgery," by Wallace I. Terry, M. D.; "Observations of a California Medical Tramp on His Peregrinations Around Asiatic Plague and Cholera Centers," by John C. Sundberg, M. D. (U. S. Consul at Bagdad).

Dr. Moffitt was invited to open the discussion on Dr. Cooper's paper. He said he did not agree to the advisability of fluoroscopic work as a routine practice. Burns often resulted, and it was impossible to say they would not occur. In determining immobility of the diaphragm it could be ascertained by percussion and Litten's phenomenon. In chest work percussion and auscultation would reveal everything that could be learned by a fluoroscopic examination. In mediastinal tumors only did such examinations reveal that which could not be gained by the usual methods. Burns might result after one or after many exposures, so that the danger was always present. Fluoroscopic work he considered good as a supplement; shadows pretty to look at, but not advised as a routine practice.

Dr. Voorsanger reported a case of persistent cough, the spasmodic character of which disappeared after a twenty-minute exposure. He attributed its disappearance to the effect of the rays.

Dr. Cooper, in closing, said he advocated routine fluoroscopic examinations, for they were an additional help, and he could find no instance of resulting burn when a grounded aluminum screen had been interposed. Limitation of movement of the diaphragm, especially the central tendon, could be elicited by this means where no conclusions could be arrived at by percussion or Litten's phenomenon. Particularly in mediastinal growths which were at times associated with beginning aneurism, the fluoroscope was the only means of determination. He advised fluoroscopic examinations as a routine practice. In regard to Dr. Voorsanger's case, he thought the alleviation of spasmodic cough due to psychical influences.

Dr. Perry said, in discussing Dr. Terry's paper, that he had used the different forms of sphygnomanometers, including the Riva Rocci. To arrive at correct conclusions certain precautions he thought necessary; one must take into account the diurnal variations, effect of eating and drinking, and also the temperature of the hands. Cold hands, he found, gave a low-pressure reading, due to venous congestion of the part. He advised warming hands to normal temperature. The routine use of blood-pressure apparatus he considered of as much value as the routine use of the thermometer.

Dr. Cooper said he was glad to see that Dr. Terry had not made the too enthusiastic claims of some as to the value of the readings in governing stimulation. In such a state as delirium cordis a high pressure is recorded, yet stimulation is urgent. When digitalis is given and responded to in such a condition, there is first an increase in pressure which then declines to normal as the heart resumes its regular beat. He said for accurate determination he considered palpation of the radial with three fingers necessary.

Dr. Terry, in closing, said he had confined his paper to the application in surgical cases. In certain cases, such as extreme shock and dark-skinned individuals, it was of no value. H. P. H.

SANTA CLARA COUNTY.

San Jose, June 17, 1903.

The stated meeting of the Santa Clara County Medical Society was held this evening in the parlor of the St. James Hotel. The attendance of members was large, besides there were a goodly number of invited guests from this section and other parts of the State, among whom were Drs. W. F. McNutt, Harry M. Sherman, Emmet Rixford and George Goodfellow, of San Francisco. This being the annual meeting for the election of officers, the following were chosen by ballot to serve for the ensuing year: President, W. T. McNary, M. D., San Jose; First Vice-President, J. T. Harris, M. D., San Jose; Second Vice-President, S. A. Beattie, M. D., Santa Clara; treasurer, W. D. McDougall, M. D., San Jose; secretary, J. Lambert Asay, M. D., San Jose.

At the close of business the members and guests partook of a banquet arranged by a committee appointed at the previous meeting for that purpose.

The membership of the Society, since its affiliation with the State organization, has rapidly increased, and it is intended to continue to invite physicians from nearby localities to read papers and take part in discussions that all may come into closer association with each other and be mutually benefited.

J. LAMBERT ASAY, Secy.

CALIFORNIA ACADEMY OF MEDICINE.

The regular monthly meeting of the Academy was held Tuesday evening, June 23, at the offices of Harry M. Sherman, M. D., Emmet Rixford, M. D., presiding, in the absence of the president.

An unusually large attendance was attracted by an announced program of much interest to the members.

At a meeting of the Executive Committee preceding the regular meeting, James T. Watkins, M. D., and C. M. Cooper, M. D., were elected to membership.

Ray L. Wilbur, M. D., read an exhaustive report on the recent typhoid fever epidemic at Palo Alto, giving statistics of infection, progress and treatment of the disease. Dr. Wilbur, through examinations and investigations made during and since the epidemic, found the source of infection to lie in the milk supply of the town and university, primarily in contaminated water used at dairies in contiguous territory. He said the water supply and sewerage system of both town and university were good. He described individual cases, showing charts of temperature and pulse, directing attention to the large number of cases where the temperature was subnormal. In collapse he used, when symptoms first appeared, hot brandy and water; found use of nitro-glycerin, camphoretted oil and ether and oil very satisfactory; as last resort in extreme cases he employed saline infusion. He used ice pack with good results.

Dr. Kerr said that the large number of cases reported by Dr. Wilbur showing subnormal temperatures was a point of great importance. Physicians are apt to pay too much attention to temperature and too little to pulse. He thought the first condition to awaken suspicion is the dicrotic pulse. He did not wish to belittle the importance of temperature observations, but the pulse should be watched very carefully.

Dr. Moffitt said one point of importance is that first symptoms are apt to be dismissed too readily; that patients complaining of slight cold, grip, ordinary fevers and the like, should be placed under observation in the fear that typhoid might develop.

Dr. Cheney said in these cases everything depends on attention to details. When the number of cases coming under Dr. Wilbur's care is considered, the amount of work done by him is little short of marvelous. Then, facilities for proper treatment in small places are much less than in large cities, and the physician there has to work at disadvantage. He thought a practice to be avoided was in doing too much in the early stages of typhoid; there was too much therapy.

Dr. Brown inquired if in the reported cases collapse was preceded by high fever.

Dr. Evans directed attention to the necessity of careful investigation of milk and water supply. He said from personal investigation he thought San Francisco was in danger of typhoid epidemic through the milk supply. He said the medical profession owes a duty to the community in this important matter.

Dr. Ryfkogle referred to examinations he had conducted in his laboratory of specimens of water and milk sent from Palo Alto dairies. He had found typhoid bacilli in them.

Dr. Carpenter inquired why operations had not been done in cases of perforation.

Dr. Wilbur, in closing the discussion, said he agreed with Dr. Kerr as to the importance of dicrotism of the pulse as a symptom. He lost no cases through collapse, which frequently followed high temperatures. He thought operation at the height of the disease extremely dangerous; the whole system was trying to repel disease, and the administration of an anesthetic would be attended with grave danger. Dr. Wilbur announced that he was preparing a paper, to follow his report, to more fully cover the treatment of typhoid.

Harold A. Johnson, M. D., made a report of a case requiring the Talma operation:

Four years ago patient's feet became swollen at night, the swelling disappearing during the day; one year ago operated upon at local hospital for tumor, but no tumor was found; on September 9 discharged four quarts blood through mouth; abdomen became greatly swollen, aspirated four times and twelve quarts ascitic fluid evacuated; February 17 operated upon, taking 40 minutes; operation described as Richardson's modification of Talma's operation; condition afterwards good; thirteenth day stitches removed; thirty-fifth day drainage tube removed; forty-fifth day left hospital; in two weeks as much effusion as ever, but later began to feel better, the gain being at first noticeable in less dyspnea; able now to do housework.

The report was discussed by Drs. Kerr, Tait and MacMonagle, the latter of whom had performed the operation.

T. W. Huntington, M. D., was on the program for "Lessons from a Fatal Case of Gastro-Enterostomy," but owing to the lateness of the hour its presentation was postponed.

STATE VETERINARY ASSOCIATION.

The California State Veterinary Medical Association held a special meeting last month in San Francisco, to discuss the affairs of the organization and transact its regular business. The meeting was one of the largest ever held by the Association. Dr. C. H. Blemer presided. A number of interesting papers were read on subjects pertaining to the treatment of diseases of the animal. One of the features of the meeting was the action taken by the Association regarding the illegal practice of veterinary surgery by men who have no regular State license. A law was passed at the last Legislature for the suppression of such practice and it is the intention of the Association to make war upon all persons who persist in the practice of veterinary surgery without a license.

THE NATIONAL BUREAU OF MEDICINES AND FOODS.

(*Continued from page 224.*)

the effort to condense has not been permitted to go to the point of eliminating anything necessary for the proper understanding of the subject.

The friendly association of the best in the professions of medicine and pharmacy with large commercial interests, necessarily demands the most careful and cautious treatment that it may be beneficial to the public and to the manufacturer without detracting from the reputations of the professional men who engage upon the work by casting suspicion upon their motives or their integrity. At the same time, a large amount of work would necessarily fall upon the professional side of such an association, and the cost of performing the work would have to be defrayed in some manner. It has seemed no less than right that this cost should be met by those who are commercially interested in and profit from the manufacture of the products which would be considered by such an association. Furthermore, it is vitally necessary that such an association should possess the right to determine who may and may not be received in association, and what products of its associates may receive its attention, and the standards of identity, purity, quality or strength to which these products should comply. It must also be in a position to instruct the public and the professions upon matters connected with its work and upon subjects that are of sufficient interest to the professions or to the public.

To accomplish these ends and to secure the protection to the professional men who shall be chosen to undertake the work outlined, the following detailed plan has been suggested:

PLAN.

In order to have proper legal and business standing, the work should be done by a corporation. As it is not intended that profit shall be made from the undertaking, the corporation should be a membership and not a joint stock corporation. It is proposed to incorporate under the laws of the State of New York, a membership corporation to be known as the National Bureau of Medicines and Foods.

The membership of this bureau shall be of two or more classes. All members of the American Medical Association and the American Pharmaceutical Association should be scientific members of the bureau. The organization should be so effected as to fully protect the American Medical Association and the American Pharmaceutical Association, their agents and all their members, who become members of the proposed bureau, from all possibility of being involved in legal or other complications that might assail the proposed bureau. Those manufacturers whose goods it might be requested to vouch for, should be admitted to associate membership, but should have no voice in the control of the bureau.

The control of the bureau should be placed in the hands of a board of ten directors, five elected by each association, one from each association retiring annually, and his successor elected for five years. This board of directors, with the exception of its secretary, who should devote all his time to the work, should not receive salaries, but should receive mileage and per diem when called upon to attend meetings of the board or of its committees. The board should, in consultation with the manufacturer, fix standards of identity, purity, quality and strength, not in conflict with the United States Pharmacopeia, and the manufacturer, having agreed to these standards, should contract with the bureau to comply with them until altered by common consent and a vote of

the board; and to comply with all rules governing him in the manufacture of his product, such rules having been formulated in consultation between the board and the manufacturer, and accepted by both. An eight-tenths vote of the board should be required to accept or reject any application for associate membership, or to adopt any rule of the bureau, or to accept or reject any product presented by an associate manufacturer for proper control by the bureau. No manufacturer or person employed by any manufacturer of products that might come within the scope of the work of the proposed bureau, and no person engaged in their distribution or sale, should be eligible on the board of directors, unless approved by a three-fourths vote of the council of the American Pharmaceutical Association or a three-fourths vote of the House of Delegates of the American Medical Association, respectively.

By-laws should be carefully drawn and adopted by the board, and thereafter it should require an unanimous vote of the board to alter or amend them in any way. They should be very broad and general, covering only vital principles, and all details should be formulated in the shape of rules which could be altered or abolished as occasion required, only by an eight-tenths vote of the board.

The business side of the bureau should be considered with no less care than that devoted to the scientific side. While it would not be the purpose of the bureau to make money, it should be the aim of its administration to confine the cost to the lowest amount consistent with properly carrying on the work, for in any event this sum would be a large one. Modern business methods should be adopted and one general responsible head appointed by the board of directors. Under him should be such persons as may be required to carry on the work under the rules and regulations established by the board, and it should be their duty to see that proper and competent persons only were employed. The board of directors, as such, should not come into direct contact with the business side of the bureau, nor with the commercial interests involved. It should act in a supervisorial capacity; it should say absolutely what rules, standards, etc., were to be followed, and it should see that a proper business department then carried out these rules.

It should be the purpose of the bureau to work in perfect harmony with the United States Government authorities and especially with the Department of Agriculture. In case of future legislation by the United States Government, some of the functions of this proposed bureau might be modified or transferred to the proper government department. The ever-present hope that such legislation will eventually be enacted should not, however, interfere with the careful consideration of the bureau plan, nor with its acceptance if it be found satisfactory. Unless spurred on by some such individual effort, many more years may elapse before the enactment of proper national legislation. Some features of the work of the bureau could hardly be assumed by the government; notably the dissemination of accurate and reliable information relative to manufacturers and their products, and especially to newly discovered remedial agents, etc., together with a proper ethical supervision of advertising matter connected with the introduction of such products.

Existing laboratories should be utilized so far as practicable in prosecuting the work of the bureau, in making its original investigations and in carrying on the work of check control, for two reasons: First, in order to incur no greater expense than absolutely necessary; second, in order to encourage scientific enterprise where now already organized.

The bureau should not issue blanket certificates. Each package of any product that is manufactured under the supervision of the bureau and which complies with its rules and standards, and for which compliance some individual expert is responsible, should, however, bear a label setting forth that fact for the benefit and guidance of the purchaser.

No nostrum, nor any medicinal product of which the full formula giving all the active ingredients and couched in the ordinary terms of chemistry and pharmacy has not been or is not freely published, should at any time be permitted to come within the supervision of the bureau.

DETAIL METHOD OF OPERATION.

Any manufacturer desirous of having one or more of his products placed under the supervision of, and certified by the bureau, would first apply to the secretary for associate membership, which application would carry with it a contract to abide by the rules of the bureau (Appendix A). The application would then be submitted to the board of directors, and on the written approval of a majority of them, such manufacturer would be accepted in associate membership.

An associate member desiring to have a given product certified by the bureau, would transmit to the secretary a proper application for that purpose, together with two samples of the product in question. One of these samples should be sealed and deposited in the custody of the secretary; the other should be transmitted to the scientific department of the bureau, together with instructions to fully investigate the article, and to compare it with at least two samples bought in open market without the knowledge of the manufacturer. When the scientific department has obtained all the information desired by the board of directors, it would transmit the same to the board, who would then consider it in connection with the application. If found satisfactory, the board, in conjunction with the manufacturer, would determine standard of identity, purity, quality and strength, to which this product should thereafter comply, and would formulate rules acceptable alike to the board and to the manufacturer, for the guidance of the chemists of the manufacturer on the one hand, and of the scientific department on the other (Appendix D).

These formalities having been complied with to the satisfaction of the board of directors, the manufacturer would then be authorized to print upon the label of each package of each batch of the product that had been approved by the expert or experts in charge, or to attach to each such package a separate paster, setting forth the fact that the contents of that unbroken original package had been certified by the bureau under certain rules; and the manufacturer might also print thereon the text of these rules. Each and every such label or paster should bear a number which would indicate, through records to be kept by the bureau, the date of the particular batch and the expert or experts responsible for having approved the standard thereof. At least two samples of each batch should be kept by the bureau for a period to be determined by the board.

At least three times each year two samples of each and every product bearing the certificate of the bureau would be purchased in open market, in different localities, and submitted to careful examination by the scientific department of the bureau, in order to determine whether the standard established was being maintained by the manufacturer. If the standard established was not being maintained, the certificate of the bureau should be withdrawn.

Unless all of the products of any manufacturer were certified by the bureau, such manufacturer should not be permitted to advertise that his products

were certified by the bureau, but in all advertisements of any certified products, he should state that such products were certified. If all his products were placed under the supervision of the bureau, he might so advertise.

An associate member who might desire to contract with the bureau to submit any and all advertising matter relative to one or more certified products to the censorship of the bureau, could do so. (Appendix C.) The bureau would then undertake to place the censored and approved information concerning such products before the physicians and pharmacists of the country in a dignified and strictly ethical and professional manner. These statements would and could with safety be relied upon by all the professional interests, for they would practically be the statements, not of the interested manufacturer, but of the disinterested board of professional men composing the board of directors of the bureau. Careful inquiry amongst a large number of physicians has revealed a unanimous desire to receive such accurate and reliable information from a wholly disinterested source. Statements issued by the bureau would receive attention where statements issued by the interested manufacturer would not be read at all, or even if read, would be regarded with a certain amount of natural distrust. It is not proposed that the bureau shall deliver official opinions as to the therapeutic value of any products; it would simply certify to their compliance with certain standards or to certain formulas. The statements which it could disseminate regarding such products would be confined to statements of fact regarding origin, composition, chemical and physiologic action, etc., and the opinions of qualified students and investigators which it might collect and diffuse for the benefit of all who might desire to investigate or make use of such products.

THE OPERATION AS APPLIED TO RETAIL PHARMACISTS.

It is proposed that the retail pharmacist shall associate with the bureau on a sound professional basis. In every way possible the bureau should endeavor to aid and improve the profession of pharmacy, and to make more cordial the relations between physicians and pharmacists. To this end the following general plan is submitted for discussion and careful consideration:

Any pharmacist who so desired could become an associate member of the bureau on application, contracting to obey and abide by the rules of the bureau. Rules governing him in the preparation of pharmaceuticals would be, as far as possible, similar to the rules governing the manufacturer, and a system consisting of careful and frequent inspection and analytic check control would be established, as in the case of the manufacturer, in order to protect the bureau certificate. Such associate pharmacists would agree to supply products certified by the bureau, when not otherwise called for, and the physicians would be advised of all associate pharmacists in their immediate vicinity. The bureau would also endeavor to have physicians call for products certified by the bureau, and whenever not absolutely necessary, refrain from specifying particular brands or makes, requiring only that the material used by the pharmacist should be of the standards established by the bureau and certified by it.

It is hardly necessary to call attention to the very wide differences in the commercial relations of manufacturers and pharmacists to the medical profession. Obviously the problems attendant upon these differences would have to be met by the bureau, by the formation of different classes of rules and by different forms of inspection. The detail work in connection with the undertaking as applied to the pharmacist, would necessarily be very great, and for the sake of proper treatment of the pharmacist himself, it should not be undertaken until the bureau has been established on a conservative basis. It should, however, be undertaken at the earliest practicable time.

Appendix A.

APPLICATION FOR ASSOCIATE MEMBERSHIP.

.. ..[place and date]

A. B., the undersigned, engaged in the business or occupation of .....[manufacturing pharmaceuticals, pharmacy, etc.], herewith makes application for associate membership in the National Bureau of Medicines and Foods, and if duly elected under the by-laws of said National Bureau of Medicines and Foods to associate membership therein, will, and does by these presents formally enter into and agree to the following contract and agreement with the said National Bureau of Medicines and Foods, to wit, as follows:

(1) To abide and be governed by all the rules and regulations of the said National Bureau of Medicines and Foods now existing or which may be enacted with the following proviso and exception:

If at any time the said National Bureau of Medicines and Foods shall enact any rule or regulation to which the undersigned cannot subscribe or comply, the undersigned may voluntarily withdraw from such associate membership, and the said National Bureau of Medicines and Foods shall make public acknowledgement of the voluntary withdrawal of the undersigned.

(2) To submit without litigation to the decision of eight-tenths of the board of directors of the said National Bureau of Medicines and Foods to the construction to be placed upon any and all rules or regulations herewith accepted and subscribed to, and to the decision of eight-tenths of the said board of directors, if the violation of any of the said rules and regulations by the undersigned becomes at any time a matter at issue.

(3) To pay to the said National Bureau of Medicines and Foods the sum of five dollars per annum, payable in advance, on the second day of January of each year, to the treasurer of the said National Bureau of Medicines and Foods, and failure to make such payment, as provided in the by-laws of the said National Bureau of Medicines and Foods, shall terminate the associate membership of the undersigned.

[Signed].....

[To be acknowledged before a notary.]

On vote of the board of directors..... was duly elected to associate membership on..... .....[date]. [Signed]..... secretary.

[Seal of the Bureau.]

Appendix B.

APPLICATION FOR CERTIFICATION.

.....[place and date]

A. B., hereafter referred to as the party of the first part, herewith makes application to the National Bureau of Medicines and Foods, hereafter referred to as the party of the second part, to have the standard of identity, purity, quality and strength of..... (product or products to be specified) manufactured by the party of the first part, certified by the party of the second part, and for that purpose enters into, makes and acknowledges the following contract:

(1) The party of the first part agrees to comply strictly with all the rules or regulations now or hereafter enacted by the party of the second part govern-

ing the standards of identity, purity, quality and strength of the.....manufactured by the party of the first part, and all other rules or regulations at any time enacted by the party of the second part.

(2) The party of the first part agrees to accept, without litigation, the ruling by eight-tenths of the board of directors of the party of the second part, upon any question of failure, refusal or neglect to comply with the standards of identity, purity, quality or strength, or failure, refusal, or neglect to comply with any of the said rules or regulations.

(3) This contract shall not take effect until any and all experts in the employ of the party of the first part, and who are in charge of and responsible for, the manufacture of .....manufactured by the party of the first part, shall be associate members of the party of the second part, and shall have entered into a contract with the party of the second part to strictly comply with all rules or regulations of the party of the second part, and to certify only to such batches of the.....manufactured by the party of the first part, as do actually and truthfully comply with the standards of identity, purity, quality and strength established by the party of the second part, hereby agreed to by the party of the first part.

(4) (To apply to such products as cannot be assayed or analyzed.) The party of the second part shall have the right to have its duly qualified and authorized inspector inspect the material employed and the process of manufacture of..... by the party of the first part, at any or all reasonable time or times, and either with or without due notice to the party of the first part.

(5) Not oftener than four times a year the board of directors of the party of the second part shall determine the percentage of ratio which the cost of conducting the work of the party of the second part bears to the value of all the products certified by it for a given time, and the party of the first part agrees to pay to the party of the second part a sum equal to this percentage of the total value of..... .....which has been certified for the party of the first part by the party of the second part, during the time specified. The party of the second part agrees that this percentage assessment shall not exceed [percentage to be determined] of the value of.....certified during that time. The value of the products on which this assessment shall be based shall be considered as and estimated from the list price demanded by the party of the first part for .....

[Signed].....

[Signatures of two witnesses. Acknowledged before a notary.]

Accepted, National Bureau of Medicines and Foods.

....., President.

....., Secretary.

Note. There will doubtless have to be a number of special contracts covering special cases; this is suggested as a tentative form for the majority of products.

Appendix C.

CONTRACT COVERING ADVERTISING CENSORSHIP.

.....[date and place].

A. B., the undersigned, an associate member of the National Bureau of Medicines and Foods and manufacturer of....., a product manufactured under the supervision and certificate of the said National Bureau of Medicines and Foods, hereby agrees and contracts to submit any and all advertising matter, or general, or public statements relative to the said product, to the censorship of the board of directors of the said National Bureau of Medicines and Foods, and further agrees and contracts not to make, nor permit, nor cause to be made, any advertisement, or general, or public statement in regard to the said product, that has not been submitted to the said board of directors and approved by a majority thereof. In consideration for the agreement and contract hereby made by the undersigned, ..., the National Bureau of Medicines and Foods agrees to make, or to authorize to be made and issued, under its name or with its full approval and sanction, any and all such advertising or general or public statements, relative to the said product, as shall have been submitted to its censorship and have met its approval.

[Signed].....

Appendix D.

SUGGESTED RULES.

Rule A. The standards of identity, purity, quality and strength of the official raw materials used in the manufacture, and of the official finished manufactured product, for all substances or products recognized by, and manufactured under this rule, shall be those of the United States Pharmacopeia, as indicated in the last published edition of that work.

Rule B. No manufacturer shall advertise or make any general or public statement to the effect that his products are certified by the National Bureau of Medicines and Foods or are placed under the supervision of the National Bureau of Medicines and Foods unless all of the said manufacturer's products have been accepted by the said National Bureau of Medicines and Foods for such supervision and control.

Rule C. In all advertisements, or general or public statements, made by a manufacturer concerning any product manufactured by him under the supervision of the National Bureau of Medicines and Foods and certified by it, the statement shall be made that such product is certified by the National Bureau of Medicines and Foods.

Rule D. The president and general manager, acting conjointly, may at any time notify any associate member to immediately discontinue the use of the certificate of the National Bureau of Medicines and Foods, upon sufficient evidence of departure from the standards of identity, purity, quality or strength of any product manufactured by such associate member, or for failure, refusal or neglect of such associate member to comply with or obey any rule or regulation of the National Bureau of Medicines and Foods. Such associate member may, however, appeal to the board of directors of the National Bureau of Medicines and Foods for decision in the matter or matters at issue, and the decision of eight-tenths of the said board shall be final.

Rule E. Each and every package of every product certified by the National Bureau of Medicines and Foods shall bear the following certificate, which may be printed upon the label customarily used, or be placed thereon in the form of a separate paster, at the pleasure of the manufacturer, together with the device of the bureau:

"The contents of this original unbroken package are certified to comply with the rules and standards of the National Bureau of Medicines and Foods."

The manufacturer may also, if he so elects, print upon such label or paster, the text of the special rules governing the standard of his product so certified.

Each such label or paster shall also bear the device of the bureau.

Rule F. Each and every label or paster fixed to every package of a certified product (except in such

cases as may be covered by a special rule), shall have printed thereon a number which will be so determined as to indicate, through the records of the manufacturer and of the bureau, the particular batch, the date of its manufacture, and the name or names of the expert or experts who is or are responsible for certifying to the standards of identity, purity, quality or strength of that particular batch.

MEMBERS OF THE JOINT COMMITTEE.

A. M. A. Committee—E. Eliot Harris, New York; N. S. Davis, Jr., Chicago; Solomon Solis Cohen, Philadelphia; H. Bert. Ellis, Los Angeles; Philip Mills Jones, San Francisco.

A. Ph. A. Committee—H. H. Rusby, New York; Jas. M. Good, St. Louis; C. S. N. Hallberg, Chicago; A. B. Lyons, Detroit; S. A. D. Sheppard, Boston. Chairman joint committee, H. H. Rusby, M. D.; Secretary, Philip Mills Jones, M. D.

Mother Mary Once More—The leader of the sheep, and the founder of the eddyite book concern, for revenue only, has at last disclosed a vulnerable point. She has taken umbrage at a published comment to the effect that her education was strictly limited (if the liability of her followers is not), and has published a beautiful document which begins "To whom it may concern." We certainly know of no one whom it more nearly concerns than the sacrilegious "Mother Mary," so probably it was a monologic document intended for self-consideration. She fairly shrieks out the assertion that she has had a remarkable education and was assisted in the production of that wonderful work, "Science and Health," for which all eddyites are agents, by inspiration. The evidence of the book itself is forgotten; the conclusive evidence of its preparation with an utter disregard for dictionary or grammar and on rhetorical lines that are truly unique, is of minor importance when considered against the assertion of "Mother Mary."

Medicine Compared with Mathematics—Medicine in its broadest sense of including physic, obstetrics and surgery, may be somewhat aptly compared with mathematics. The former comes to its ordinary diseases, its parturient problems, its accidents and injuries with well recognized and efficient remedies and treatment; the latter meets its ordinary problems of surveying farms, lots and claims, of laying out roads, of building habitations, bridges and tresles, with all readiness and skill. But when, in the case of the former, it comes to discerning the origin and compassing the subjugation of tuberculous tendencies, or of successfully arresting the onward march of malignant growths toward the citadels of vitality, it finds itself in much the same predicament as does mathematics with problems of Panama canal or aerial navigation to solve.—Dr. Hammond, *Annals of Gynecology and Pediatrics.*

Climatic Treatment—Increasing experience is impressing upon us more and more the fact that patients suffering from severe diseases not only require careful treatment so far as drugs are concerned, but also need surroundings which are qualified to improve their general health, to increase their vital resistance, and thereby enable them to combat the maladies from which they are suffering. Indeed, it may be well said that drugs, in many instances, are solely of value for the purpose of putting aside symptoms which are annoying, and that the question of speedy recovery must chiefly depend upon the vital powers of the patient. It is becoming a matter of daily experience that pulmonary tuberculosis can rarely be cured by medicinal agents, whereas, in a great number of instances, in its early stages, it can be rapidly overcome by resorting to a proper climate.—*Therapeutic Gazette.*

Association of Railway Surgeons—At the annual meeting of the State Medical Society at Santa Barbara an Association of Railway Surgeons of the Pacific Coast was organized. Dr. Coffey, of the Southern Pacific, was chosen president and Dr. Morrison, of the Santa Fe, vice-president. The next meeting will be held in San Francisco in August.

Dr. A. H. Glennon, of the Marine Hospital Service, has been ordered to Washington to become second in command under Surgeon-General Wyman. He will have charge of the domestic stations of the United States. Dr. Blue remains in San Francisco in charge of the U. S. Bacteriological Laboratory and the work connected with the suppression of contagious diseases.

Dr. Carl Groves Wilson, recently interne at the City and County Hospital, was married on June 17 to Clara Louise Ede.

CALIFORNIA COUNTY MEDICAL SOCIETIES.

NAME	PRESIDENT	SECRETARY	MEETS
Alameda County Med. Association..	E. J. Overend, Oakland	A. H. Pratt, Oakland	
Contra Costa Medical Society		J. S. Riley, Port Costa	
Fresno County Medical Society	Wilson Fowler, Fresno	Angus B. Cowan, Fresno	First Tuesday
Humboldt County Med. Society	R. Felt, Eureka	G. N. Drysdale, Eureka	Second Tuesday
Kern County Medical Society	T. W. Helm, Bakersfield	Wm. S. Fowler, Bakersfield	
Lake County Medical Society	J. S. Downs, Lakeport	H. O. Brink, Lakeport	
Los Angeles County Med. Society...	Rose Talbott Bullard, Los Angeles	C. G. Stivers, Los Angeles	First and third Friday
Marin County Medical Society	A. H. Mays, Sausalito	W. F. Jones, San Rafael	First Saturday
Orange County Medical Assn	Wm. Freeman, Fullerton	H. S. Gordon, Santa Ana	Second Tuesday
Placer County Medical Society		R. F. Rooney, Auburn	
Riverside County Medical Society...	Louise H. Clark, Riverside	W. W. Robles, Riverside	Third Tuesday
Sacramento Society for Med. Imp...	Thos. Ross, Sacramento	J. W. James, Sacramento	Third Tuesday
Medical Assn. of San Bernardino....	W. Thompson, San Bernardino	J. H. Meyer, San Bernardino	
San Diego County Medical Society.	R. L. Doig, San Diego	T. L. Magee, San Diego	
San Francisco County Med. Society	Louis A. Kengla, San Francisco	Wm. F. Barbat, San Francisco	Second Tuesday
San Joaquin County Med. Society...	S. E. Latta, Stockton	W. S. Snedigar, Stockton	Last Friday
Santa Barbara County Med. Assn...	Chas. Anderson, Santa Barbara	W. B. Cunnane, Santa Barbara	
Santa Clara County Med. Society...	W. T. McNary, San Jose	J. Lambert Asay, San Jose	Third Wednesday
Tri-County Medical Society		S. T. Pope, Watsonville	
Tulare County Medical Society	A. L. Wilson, Tulare	T. J. Patterson, Visalia	
Ventura County Medical Society ...	John H. Love, Ventura	C. L. Bard, Ventura	
Med. Soc. of Yuba and Sutter Cos...	T. P. Peery, Yuba City	E. W. Hanlon, Marysville	Quarterly

Secretaries of County Societies are requested to notify the JOURNAL of any changes in above directory.

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

AUGUST, 1903.

EDITORIAL NOTES.

ATTACK ON MEDICAL LAW.

At the special request of the JOURNAL, Mr. W. C. Tait, the attorney for the State Board of Medical Examiners, has given, in this issue, a synopsis of the *status praesens* because of the latest attack made on the Board in the courts. The JOURNAL has considered this timely, for the subject is of interest to every medical practitioner, is not likely to be fully presented in the lay press, and may be presented with bias in some publications. The presentation of the matter is in no way an attempt at a trial of the case, for that will occur in the courts; but it is a very clear statement of what has been done and is doing in these matters and is offered for general reading and consideration. Mr. Tait points out that all attacks on the Board of Examiners by illegal practitioners have ceased. They had their innings some time ago and never won a case. The present attack is from men holding a license or those who have failed to secure one by passing the required examination. It is a remarkable thing that any man could wish to wipe out the mark that distinguishes him from the illegal practitioner, or could wish to enter a company where these black sheep could also claim a place. The profession has to think of this. The present attack is on the legality of each practitioner's license—each individual man being attacked. Does the profession want that? There is another point that is brought out, namely, the greater value of a license in a court of law than a diploma. The average juryman can easily understand what a license is. The trades unions may have taught it to him, and, if so, they have taught the lesson exceedingly well; but this same juryman does not care particularly for the diploma. The physician may, on the other hand, be particularly proud of his diploma; it may have come from an institution which makes its diplomas mean something, and it may represent, to its owner, a goal attained after very hard work. This, of course, is quite right and as it should be; but it is equally right that the license should have its value in its own place. In scholastic circles let us think of our diplomas; in legal strife let us stand by our licenses, and let us see to it that those who attack the law that gives us our professional licensure shall be thought of as would be those who attacked our personal characters. The JOURNAL asks the perusal of Mr. Tait's paper. It is confident that it will clarify the ideas of many who, from lack of incentive to think of the matter, have not kept always before them the fact that it is the license on which their legal standing rests, and that if this is overthrown we become at once legally illegal. Who wants that stigma?

ADDITIONS TO MATERIA MEDICA.

The report of the committee on new remedies of the New York State Pharmaceutical Association, recently published, is a document of absorbing interest. In reading the report it is difficult to determine whether any members of the committee are gifted with a sense of humor, but we certainly hope that such is the case. They are sufficiently cautious, in any event, for the phrases "stated to represent," "said to contain," "said to be more effective than—," "claimed to be more effective than—," "said to be non-toxic," etc., are found in a great majority of the short statements relative to these new "materia medica preparations." The committee seems to have included only those which it deems of some consequence, yet the list enumerates 115 articles. How many more new "materia medica preparations," not worthy the consideration of the committee may have been placed on the market during the year, for the annoyance of the physician and to load up the pharmacist, it would be difficult to determine. We know of a considerable number that are not to be found in this list. Of the 115, thirty-seven are either simply new names for old things, or are launched and "recommended" as substitutes for something else; many of these are merely trade names for well-known chemicals or pharmaceuticals. Fifteen of the 115 are "recommended" for use as uric acid solvents, or for the general treatment of genito-urinary troubles; and practically all of these are merely mixtures of previously known remedies. Thirteen are stated to be useful in the treatment of throat or lung troubles, or are of the guiacol family of preparations. Of these, in general, the committee says: "While most of these compounds are free from the objectionable characteristics of guiacol itself, it is, nevertheless, the fact that most of them are at the same time much inferior to the parent product in medicinal value."

PHYSICIANS: ARE THEY IDIOTS?

Are the physicians of the country regarded as decidedly lacking in ordinary sense, and in common education in therapeutics, materia medica and chemistry, by the manufacturing interests of the United States and Germany? The question is asked in all seriousness and is based upon good reason in fact. The report of the committee on "New Materia Medica" preparations, elsewhere referred to, throws considerable light upon the question, as will be readily seen from the following quotations taken from the published report of that committee: "——— is a coined name for calcium glyceroarsenate." Surely he who "coined" the name must be of the opinion that physicians are weak-minded, and can remember only words of one or two syllables. And again, "——— is another name for quinine dibromosalicylate." Here the effort of the kindly disposed "coiner" of the name is to aid in educating the memory of the poor, half-witted physician by forcing him to remember two things instead of one: first the thing he wants to use, and second the name which has so thoughtfully been "coined" for it. "——— is the trade name for a preparation containing 66 2-3% lysoform and 33 1-3% crude carbolic acid." This is evidently advanced in order to save the strain on the physician's intellect that would be caused by writing a prescription for such a mixture, in case he should want to use it. Another effort to relieve the physician from the mind-burden of remembering what things he wants to put in a prescription appears in, "——— is a solution of sodium cholorid 6, potassium iodid 2, water 1000." Ferric glyceroarsenate and sodium bromo-valerate are regarded as far too difficult names for the physician to remember, so they have been provided with "coined" names by the thoughtful manufacturer. The list includes another hypnotic, (in fancy we can hear each physician sigh, as he reads the words and thinks what is surely coming his way with the "little brown bag"), that is "reported to surpass all the hitherto known medicaments in efficiency." Lest the ignorant physician should inadvertently use cocain, when he knows he really shouldn't, a kindly manufacturer has supplied "——— the name given to a long list of proprietary preparations which, contrary to the suggestiveness of the name, contain no cocaine." And so the merry work goes on and the self-conceit of the manufacturer grows, and knows no check. The impudence of some is monumental, and the cheek of most is atrocious; the physician must not write a prescription, he must write an order on the pharmacist for what has already been compounded. If he likes, he can send the order to the department store. Why have any pharmacists?

COCAIN HABIT.

The cocain habit seems to be growing rapidly in the southeastern States. Reports are coming in more and more frequently concerning the grip that this drug has taken upon the poor and ignorant, both black and white. Unscrupulous nostrum manufacturers were not slow to appreciate the money to be made from the lives of those who could be lead into the habitual use of quack medicines containing cocain. Snuffs, catarrh cures, headache powders, etc., containing enough cocain to induce the habit in a short time, have flooded the southern market, it is said, and are spreading northward. Unfortunately this nostrum criminal is at present beyond the reach of the law, and he may ruin and kill or drive to insanity as many poor victims as he can persuade to try his "medicine." As yet no laws are to be found that will effectively touch these pharmaceutical criminals, and for a time they may go on with the horrible traffic in lives ruined for personal gain. But the time will surely come when this sort of thing must cease. When medical organization shall have sufficiently progressed, and when the medical associations, State and National shall awaken to the immense amount of potential energy and influence they possess, then this bloody trade will be stopped. Strange to say the so-called reputable pharmaceutical houses are not infrequently the real manufacturers of these deadly nostrums. Of course their names do not appear upon the packages of cocainized "snuffs," etc.; they may simply manufacture the stuff for some one else; but they derive their share of profit from the blood money. If the dormant energy of the medical profession were once aroused, a wonderful revolution might quickly be effected.

PHARMACY AND MEDICINE.

It is a mighty nice, comfortable thing to lay all the blame on the other fellow and say he's a rascal. It is quite the thing to rail at the pharmacist as a "rascally substituter" and a conscienceless adulterator, and to say that he has fallen from his place as a professional man, of his own accord. But let us see, for a moment, if all the blame is really his; if the physician has not earned his share? A wily tongued drummer comes to the physicians of a certain neighborhood and persuades them that his house is putting up a certain mixture of well-known ingredients that is much better made and in every way more satisfactory than the retail pharmacist can prepare it. He convinces a few and they, instead of writing a prescription for the pharmacist to compound, as formerly, write an order for the ready-made mixture. The pharmacists in the vicinity have to buy this preparation and dispense it. As a result, the pharmacist, through the physicians' acts, is no longer a scientific compounder, but has become no more than a merchant; the order from the physi-

cian might as well have gone to a department store. And further, the pharmacist, who, if he is properly trained, could probably compound nine-tenths of the mixtures thus ordered by the physcian, has lost a good percentage of his profit; for he can compound the prescription much more cheaply than he can buy the mixture and dispense it, thus paying tribute to the manufacturer and to the wholesaler, if not also to the jobber. Does the physician offer any inducement to the clerk in the drug store to be a highly skilled chemist and pharmacist? If the physician is to order "ready made" medicine, why should a young man devote several years of his time and considerable of his money to the study of chemistry and pharmacy? In many instances the pharmacist knows that the mixture, the "ready-to-use" medicine ordered by the physician is no better, if indeed as good, as the preparation he could make himself, or as a similar mixture made by some other house and sold in bulk, which he can buy for a fraction of the cost, and thus make more profit. If he mixes it himself, or if he buys the indentical mixture in bulk, under another name, and dispenses it as the special thing called for, which indeed it may be in all save name, he is called a rascally substituter and condemned forthwith. Let us be honest with ourselves and ask whether all the blame belongs where it is generally placed—on the shoulders of the pharmacist. There are always two sides to every shield, and if only one of them is black, the other may be very dark brown.

THERAPEUTIC VALUE OF X-RAYS.

At the recent meetings of the American Medical Association at New Orleans and the Congress, at Washington, a number of papers were presented relating to the use of the X-rays in the treatment of lupus, epithelioma, carcinoma, etc. In all of these papers one thing at least was especially noticeable—decidedly more caution in expression than has heretofore been the case. No one can say, as yet, what the direct effect of exposure to X-ray influence actually is. It is probable that such changes as have been observed to take place following X-ray exposures are due to purely physical effects; but this has not been demonstrated. Furthermore, granting this assumption to be true, we do not know what the secondary effect of such physical changes in the cell structure may be. On the pretty well demonstrated theory that we are simply dealing with a form of radiant energy, and that the molecular absorption of this radiant energy produces changes in the molecule which again produce changes in the cell itself, we can account only for some probable alteration in structure, but cannot prophesy what the nature of such alteration will be. It seems safe to assume that the more complex cells, containing more unstable molecules, will be first effected and that normal cells, or those less complex, will be last altered; but this is purely hypothetical. Experimenters in various places have already recorded a large number of curious facts which, so far as we are aware, have not been studied with a view of interpreting their meaning. A certain range of usefulness has already been demonstrated and that we do not propose to dispute. But it is urged that all statements in regard to "cures," or explanations of what has taken place, be made very cautiously until decidedly more light has been thrown upon the whole matter by competent students who have investigated the physical side of the problem.

DIRECTORY OF PHYSICIANS.

It seems to be about time that attention should be called to the general directory of physicians of the United States as planned and outlined by the American Medical Association. Each State medical society is to gather the necessary data for its State; the lists should be full and complete, and each person practicing medicine within the State should be accounted for. To do this satisfactorily, only one way presents itself—the card-file system. Each State should have its card file of physicians and that file should be full and complete. It should give all necessary information regarding every physician; his date of graduation, school, date of license, addresses, specialty, society memberships, hospital appointments, etc., etc. It is the idea of the American Medical Association to encourage this effort in every way possible, to the end that such information may eventually find its way into the office of the Association, and into a general directory of the whole country that will be satisfactory. To accomplish this end the hearty coöperation of every State medical society is absolutely necessary, and for each State society to do the work with the least expenditure of money the hearty support and coöperation of every member will be required. And not only of every member, but of every physician who is not a member; for such a directory will be as useful to non-members as to members. Work on a register of physicians of California has already been begun; work on the card file of physicians, on which future registers will be based, will be begun very shortly. It is the paramount duty of each physician in the State to help along this work as much as he can. When you receive cards or blanks from the Secretary, do not throw them in the waste basket; you are only hindering the work and throwing away some of your own good money as well, for it will require the further expenditure of money to secure the information which you could give, if you do not take the few moments necessary. We are not asking you to do anybody a favor; we are simply advising you to do your plain duty, and one from which you will profit as much as anyone else.

THE RED CROSS MUDDLE.

The poor Red Cross Society seems to have got itself into a good deal of a muddle. The President, Mr. Roosevelt, will have none of it; those who object to anything that Miss Barton happens to think, are thrown out of it; and there you are! Miss Barton seems to have had herself elected for life and to have skilfully arranged things so that she is practically the whole society, the custodian and the spender of its funds, and responsible to no one save Miss Barton. A few poor, misguided ones who objected to the way the concern was being mismanaged, and who had the temerity to file a written statement of their protest, were bodily thrown out, a few months ago; they are still languishing without the radiance of Miss Barton's smile. There seems to be a general, though mistaken belief that this Red Cross Society is semi-official, and that it has some connection with the International Red Cross Society. This is quite far from the actual truth. The Red Cross Society in this country is entirely a private and unofficial enterprise. Originally it had considerable life and did a good deal of good; latterly it has shown every indication and symptom of being badly affected with the disease known as dry rot. Miss Barton is a very estimable old lady; but she is too old for the society, and too thrifty; either the age or the thrift has lead her into making a number of very serious blunders in the past few years.

PHYSICIANS' CARD FILE.

The matter of preparing a full card file of all who practice medicine within the State of California is not a small undertaking, but it is desired to have it satisfactorily done. In New York, New Jersey and Connecticut the great value of such a file has been demonstrated; in Illinois work on a similar card file has been commenced; other States are about to undertake the work. One thing is exceedingly desirable; all these State files should be identical in form. The ultimate usefulness of such a series of card files will be very greatly enhanced if they are all along the same lines and all conform to one general style. Therefore it should be the intention of each State society to make use of the forms and cards suggested by the American Medical Association. A further argument in favor of their use is that the Association is prepared to furnish them at a figure much lower than they could be bought elsewhere. It is quite possible that some of the various individuals who may have charge of this work in different States may have ideas of their own in regard to the form of card to be used, and the data to be gathered, etc. Original ideas are very good things to have, but a full and complete system is a whole lot better. A poor plan consistently carried out is worth a good deal more than a number of very excellent ideas imperfectly carried out. Bear this in mind if you should be tempted to harshly criticize the form of cards used or the information which you are requested to give, and restrain your natural resentment because it is not just as you would have it.

A CHECK TO LEGALIZED BLACKMAIL.

It is astonishing how little the average professional man knows about legal medicine or medical legislation. There seems to be even some apprehension entertained of bringing matters of medico-legal interest before meetings of medical men and to have discussions thereon. This fully explains why some very important legal matters pertaining to the medical profession are in a most deplorable condition. This deplorable condition is only possible through lack of knowledge; it is the apathy and the aversion toward discussing medico-legal subjects that allow the perpetuation of such abominations as, for instance, the present status of expert witnesses and expert evidence.

Another abomination is the defraying of the costs of a jury trial, as practiced heretofore; and yet the medical fraternity never made any move to have this changed. Possibly from spite, from malevolence, or with the intention to extort money from a doctor, an irresponsible party engages a lawyer to institute a damage suit for alleged malpractice. A decent lawyer, an honorable member of the legal profession, will decline any participation in a "legalized blackmail" scheme; but there are too many lawyers who are just looking for such an undertaking. To make the unsavory trio complete, a member of the medical profession is needed who is willing to encourage and to aid with his evidence, the case of the legalized blackmailers. Then the case will be dragged before a jury. There are also too many medical "confreres" who do not hesitate to stultify themselves by becoming promoters of these low, contemptible practices. The result of this "triple alliance" is the alarming increase in actual suits for alleged malpractice and the frequent attempts at legalized blackmail.

In a jury trial thirty-four dollars has to be deposited every day into the hands of the bailiff of the court by both parties; twenty-four dollars for the twelve jurors and ten dollars for the shorthand reporter. That money will always be easily forthcoming. People may profess poverty when they have to pay the honest services of a physican, but when it comes to suing a physician they will always get the necessary money. Besides the deposition in the bailiff's hands there is very little actual expense connected with this nefarious business. The filing of the necessary papers is cheap enough; the lawyer takes the case on a contingency fee.

The law and the practice of the courts heretofore was to return to the defeated party the money deposited by him, and to keep the money of the party in whose favor the verdict was given with which to pay the expenses of the trial. A judgment against the defeated one to the amount retained as costs was given to the victorious party. What was the outcome of 99% of these cases. If the case be lost for the defendant physician he could not escape payment, for the plaintiff's lawyer had carefully investigated and found that the defendant was possessed of tangible property. But if the defendant won the case, then he held a worthless judgment, one not worth the paper on which it was written.

Thus there was absolutely no risk for the legalized blackmailer; it was quite a sure thing. But for the defendant the matter was different; he had to pay an attorney's fee to conduct his defense, and besides was condemned to pay the costs of the trial when he fought the raid on his hard-earned money, when he defended his professional reputation and his honor, so villainously assailed, not to speak of the loss of time and the worry.

A change has now been made; upon inquiry a prominent lawyer gives the following explanation:

Section 1022 of our Code of Civil Procedure provides that costs are allowed, of course, to the plaintiff, upon a judgment in his favor, where plaintiff recovers $300 or over. The construction given to this provision has been, and, no doubt, will be hereafter, that where the plaintiff recovers less than $300 he is not entitled to costs, except in special cases mentioned in other sections of the Code of Civil Procedure. The change of the rule, reported by the *Chronicle*, therefore only refers to cases where more than $300 is recovered by the plaintiff, or where the judgment is in favor of the defendant. In either of the two last mentioned cases the successful party hitherto paid the costs and took judgment for the same against the defeated party; but in the future the costs are to be paid out of the money previously deposited in court by the losing side, while the deposit made by the winner is returned to him.

This will work as a material check to many intending to sue physicians upon flimsy, trivial causes, if they are in danger of losing the money deposited with the court, when defeated. They will in the future think it over very seriously before rushing into court.

Access to law must be easy for everybody, certainly, and proper litigation must not be discouraged; but the law as practiced heretofore was a direct inducement to "legalized blackmail"; it was a premium on a criminal undertaking.

COUNTY HOSPITAL NEEDS.

In 1902-1903 the Board of Health had given it for the support of the City and County Hospital, $105,000. This year it has been given $115,000 an increase of $10,000. The JOURNAL confesses to great interest, even curiosity, as to how this increase is to be expended and it has made a few inquiries to satisfy its curiosity. These inquiries were prompted by some statements in the daily press, which said that the increased appropriation for the whole department, which amounted to $17,276.45, was going largely into increased salaries, and that the public and the taxpayers would get but little benefit. The JOURNAL is bound to confess that there is some ground for the statement, for it has found that the increase of salaries has extended to the hospital as well, and that forty-nine employees are the recipients of the favors.

Now some of these increases are really insignificant, for five employees have their monthly pay increased from $7.50 to $10, and twenty-two have their salaries increased by but $5 per month; but the total of all the increases for the year sums up a very respectable amount, viz: $3390, and this makes a big hole in the $10,000. Looking at other details the JOURNAL is impressed with the possible propriety of some of the increased salaries. The chief cook is to get $80 per month instead of $75, whereas, the right cook would be cheap at $150, and what is said of the cook would probably be true of the baker, who is on the same rating and has the same increase as the cook. The head nurse is to get $60 instead of $50, whereas the right head nurse cannot be gotten for less than $100; but the JOURNAL does not see why a relief watchman should have his pay advanced from $15 to $35, or a chambermaid have hers advanced from $30 to $35.

Part of the increased appropriation is to be used in paying additional nurses, and this is for the direct benefit of the patients, and cannot be too highly commended; but there is still $5410, the destiny of which is not announced, and the JOURNAL will look with critical interest as to how it will be spent. If the JOURNAL were asked to express its views in advance, it would say that some, at least a small part, should be used to remedy some of the notorious hygienic faults, hygienic crimes of the building; the crimes that the self-appointed committee of women of San Francisco went out and saw and afterwards reported to the Board of Health and to the Board of Supervisors. But not too much should be expended in repairs while the possibility of a new hospital is before us. The greater part should be expended in the wards and on the patients in the shape of more and better food—there cannot be too much improvement here—and in better personal service to those in bed. Even in a deficient building this could be done, and it would result in shortening the hospital days of the patients who recover, and in lessening the mortality of the whole institution. The JOURNAL is ready to be informed on this subject and will give the information adequate and impartial consideration.

AN UNUSUAL INFECTION CAUSING ACUTE SUPPURATIVE APPENDICITIS.*

By HARRY M. SHERMAN, A. M., M. D.
Professor of Surgery, Medical Department, University of California; Surgeon to St. Lukes Hospital and Orthopedic Surgeon to the Children's Hospital.

THE patient was a young man twenty-three years old. He had had an attack of acute appendicitis six years before, from whic he had recovered without surgical intervention. A year ago he had an attack of typhoid fever. He had had occasional attacks of constipation. He had had an attack of pain in the abdomen one noon, it got worse in the afternoon and during the night. He was seen by Dr. W. W. Kerr early the following morning and turned over to me for immediate operation. This was done at noon of the same day. Before going on the operating table his pulse was 120, temperature 38.8° and his leukocytes 14.500 The belly was moderately distended, tender all over but chiefly in the right iliac region and there was muscular regidity. The incision was made over the appendix and gave vent to a large quanity of sero-pus. The appendix was twisted up to the outer side of the cæcum, was perforated, and a couple of hard fecal masses were loose in the peritoneum. The general peritoneum was somewhat injected, but glossy; near the appendix the congestion was much greater, but the peritoneum was still glossy. The amount of plastic lymph was small and in but few patches. The appendix was tied off, the belly washed out with salt solution and then drained by gauze passed in at the operation wound and out at the flank through a stab wound. Similar openings were made on the left side. The after treatment consisted in securing intestinal rest by Ochsner's plan and in changing the dressings as they became saturated. The general and local symptoms all subsided; the temperature remained about 37.5° or 37.7° and the leukocytosis fell to below the average normal amount. The recovery was uninterrupted and uneventful.

The appendix was taken from St. Joseph's Hospital, where the operation was done, to St. Luke's Hospital, and sent into the laboratory. In transit it was wrapped in sterile gauze and gutta percha tissue. A culture from it gave Friedlander's pneumobacillus in pure culture. Two days later a gauze drain was taken out and examined in the same way. It also gave a pure culture of the Friedlander bacillus. Herein lies the whole point of the paper. Mynter in his thesis on appendicitis, quotes authorities and cases showing that the colon bacillus has been found alone in these cases or associated with the streptococcus, or the staphylococcus aureus or albus, or the bacillus prodigiosus, or the pneumococcus, or various saprophytes or various anaropic bacteria. The bacillus pyocyaneus has been found alone, so has the staphylocuccus pyogenes aureus, and albus, and the streptocuccus. Nowhere have I been able to find a case recorded in which the pneumobacillus has figured alone as the pathogene.

Dr. Mary Halton's report was as follows;

St. Luke's Hospital:—Name, Mr. B. Specimen submitted, culture made from appendix.

Laboratory report:—Culture tube contains about 50 colonies of a short thick bacillis, rounded at ends. Baccilis is encapsulated, non-motile; does not stain by Gram's method. Colonies have a creamy, yellowish color, and gelatinous consistency. Typical "nail hard" growth in stab culture on gelatine. Glucose and lactose both fermented.

Second culture submitted contains about 40 colonies of a bacillis identical with the one previously found.

Diagnosis:—Bacillis of Friedlander.

With the blood of patient there is a fairly well marked agglutination reaction.—MARY HALTON.

Dr. Dudley Tait in discussing Dr. Sherman's case: I wish to compliment my distinguished friend, Dr. Sherman, on the character of the work done at the Children's Hospital, from the various services of which we expect to receive from time to time some very interesting facts. Many of our hospitals, on the contrary, never even think of utilizing their vast material, while others furnish yearly long statistics of operative work alone, which closely resembles and almost deserves the name of "surgical sport." Dr. Sherman's findings are certainly interesting, and I beg to remind him that with the aid of modern laboratory methods his conclusions might have been, or rather most probably would have been, entirely negatived. To expose a specimen for more than an hour to the air and then take a culture from it, and furthermore to make a culture from a gauze drain 24 hours after operation may be considered sufficient to suggest probable contamination. Many suppose that a few culture agar or bouillon tubes, an incubator or a convenient hip pocket are all the requisites for a bacteriologic diagnosis. They firmly believe that such a diagnosis is as easy as a qualitative analysis in inorganic chemistry. Unfortunately, many of the textbooks hold a similar opinion. They forget that a very important class of pathogenic bacteria will not grow on the ordinary media in contact with air. If, for example, we take a specimen of pus from an acute otitis or a marked appendicitis and examine immediately with or without stain, we shall notice an extreme variety in the morphologic aspect of the specimen. Upon culture of this pus on the ordinary media, we shall be surprised at the enormous disproportion between the abundance of micro-organisms found upon direct examination of the pus and the small number of colonies developed. The conclusion is obvious; the majority of the bacteria have not developed. In some cases, the culture tubes remain absolutely sterile and then the hasty or ignorant observer concludes to the sterility of the pus. In case some rare colonies do appear they generally belong to the common pyogenic varieties. The majority of the forms noticed in the pus are not present. Now experience shows that if instead of using the ordinary media as for aerobic bacteria, we make cultures on media deprived of air, an abundant growth of anaerobic bacteria takes place, and one finds again the numerous forms noted originally in the pus. I have never understood the silence of the English and American school upon the subject of the role of the

*Read before the San Francisco County Medical Society, July 14, 1903.

(*Continued on page 276.*)

UNUNITED FRACTURES OF LOWER EXTREMITY.*

By LEMOYNE WILLS, M. D., Los Angeles.

Professor of Anatomy, College of Medicine of the University of Southern California.

THE large number of failures of operations for this condition are well known. The unfortunate results are largely due to the lack of sufficient exposure of fragments and to the difficulty of keeping the wound antiseptic and the parts in correct apposition.

The position of the fracture and the character of it, whether transverse or oblique, have much to do with the difficulty of reducing malposition of fragments and the maintenance of them in a good position. The leverage of muscles and the antagonisms of the various groups and single muscles must be carefully studied and considered, and upon all these questions will depend the proper method of treatment and the ability to keep the parts at rest, so that union may take place as correctly as may be and at as early a period as possible.

The brief and summary manner in which this very important subject is mentioned in most text books on surgery, barely a half page being given to it, gives one desiring information the idea that little need be said and that unsatisfactory results are very uncommon. Such is not the case. Such an authority as Hamilton estimates that one case of ununited fracture occurs in every five hundred fractures. The most complete description of ununited fracture of the femur with its treatment, is given in Jacobson and Steward's second volume, edition of 1902. There has been much hair-splitting over the distinction between delayed union, non-union and ununited fracture. Most authors agree that if union has not occurred after six months, it should be called ununited. *The American Text Book of Surgery* says delayed union is not uncommon, but failure of union is rare. Most cases occur in middle life and most frequently in humerus, tibia and femur, in the order named. In proportion to the number of fractures of the respective bones, delayed union and failure of union occur more frequently after fracture of the femur than after that of the tibia.

The causes may be divided into constitutional and local. Constitutional predisposing conditions are fevers, hemorrhages, shock, gestation and lactation, advanced age and paralysis; syphilis seemed to have little effect in causing non-union. Local causes are imperfect co-aptation with marked overlapping, interposition of muscle, periosteum, tendon, fascia or nerve between the fragments. When the violence done to the bone as well as to surrounding soft parts is considered, it is not remarkable that tissues should be interposed between ends of fragments, but it is surprising that non-union after fracture is not more common than it is.

Perhaps of all the causes of this condition, insufficient immobilization is the most frequent. Absolute fixation of ends of fragments is most important, and must be obtained and maintained at all costs.

Various conditions may be found in the ends of bone at the seat of fracture as the result of non-union. The ends, by reason of motion, may be rounded or covered with fibrous tissue and suffer considerable loss of substance and size. The ends may be united by a more or less firm band of fibrous tissue which allows a considerable amount of motion between the ends of bone. This is by far the most common variety of ununited fracture. Pseudarthrosis is the variety in which a false joint is formed at the seat of fracture of the ball and socket type, with a more or less well developed capsule and fibrous tissue resembling cartilage, and lined by endothelium and secreting synovial fluid. This variety results most likely from continued motion in a transverse fracture in which fibrous union was originally present.

Non-union, even to the extent of a very slight degree of motion, in bones of the lower extremity, is followed by more disability than if in the bones of the upper extremity, for in the latter the muscular action will give a fairly good arm. A leg in this condition, however, cannot bear weight and locomotion is greatly interfered with.

Many methods of treatment have been devised and practised for the relief of this condition—friction of ends of bones, drilling and fixation, use of mechanical apparatus and excision of the ends of bone followed by fixation with sutures of metal splints. In fractures of the femur, when operation has been refused, or for constitutional reasons is inadvisable, an ambulatory splint may be used, which will allow the patient the use of the part and enable him to go about, and it may occasionally result in union at the seat of fracture.

By all means the most practical and radical method, and the one promising the greatest percentage of cures, is excision of the ends of the bone and fixation by any one of the various methods in use to-day. Of these suture by silver or other malleable wire, pegs or the Parkhill clamp, promise best results.

In all these methods the wound is closed and the leg encased in a plaster bandage sufficiently large to allow for some swelling, and long enough to obtain complete fixation of the part. If such a fracture has occurred near either extremity of the long bones, additional difficulties are at once encountered owing to leverage and traction on the shorter fragment. If in the middle of the shaft, less trouble will be had. To fix the thigh, in any part, it is absolutely necessary to immobilize the hip joint by including the pelvis and trunk in the

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

plaster of paris bandage. Some operators go almost as high as the axilla in their anxiety to fix the thigh on the body.

The fact that little is written on this class of cases, especially of ununited fractures of the femur, leads me to bring this subject to your attention and to report a very interesting case which has been in my care the past few months, which has yielded at last to treatment and has made a very satisfactory recovery. I shall give you a brief account of the treatment, results, and my mistakes, through which I have learned much. Skiagraphs have been taken at various stages and assisted materially in guiding me in correcting faulty positions, etc.

First, however, I wish to present a series of six cases of ununited fracture of the lower extremity the data of which I have obtained through the courtesy of my friend Dr. George W. Lasher. He was called in consultation to see these cases and operated them with the given results.

Case 1: Miss C., age fifteen had a good family history, never had had a broken bone. I saw her in consultation with the late Dr. Francis Haynes, 1892. Ten and a half weeks before my visit she had broken her left leg at middle third. On examination we found non-union. We operated on the leg and found a very oblique fracture and a large amount of fibrous tissue was removed, the ends of the bones curetted and the fragments approximated with two wire sutures. The patient made a good recovery without suppuration. There is only a little shortening and she walks without a limp.

Case 2: W. C. B., Corona, Cal., age forty-five strong and healthy, never been sick nor had a broken bone. On January 24th, 1896, was kicked by a horse and both bones of the right leg broken. The fracture was treated by splints and extension and comited extension. He came to Los Angeles in the latter part of the following April. On examination I found a simple transverse fracture of the tibia and fibula at the junction of the middle, with the lower third. The fragments were in exact apposition and perectly immobilized. A slice of bone was sawed off from both ends of the tibia and the fragments were wired with a No. 20 silver wire. He remained in the hospital four weeks, when the limb was placed in a plaster of paris splint and he was ordered to go about on crutches. It was an impossibility to assign any cause whatsoever for the bones not uniting. He was in good health, had a good appetite, the bones were in place, the fragments had been perfectly immobilized, he was out of doors every day, and yet it was fully eight months from the time of operation before the limb was so strong that he could go about without crutches or a cane.

Case 3: T. S., age twenty-seven, always been healthy, good family history, by occupation a machinist. In March 1897, the left thigh, upper part of the lower third was broken by a piece of machinery falling on the limb. The fracture was treated by three co-oplation splints and Buck's extension, also by a Desault's long splint. Nine months after the accident. I saw him, in consultation with Dr. N. H. Morrison. We operated him at that time and found the upper end of lower fragment behind and two inches above the end of upper fragment, and muscular and fibrous tissue between the fragments. The ends of the bone were removed and wired with ordinary iron wire. He remained in bed six weeks. The union was perfect and the alignment of the limb good. Two months after the operation there was suppuration and the wire was removed. The wound healed rapidly and in a short time he was able to be about and work at his trade. Shortening one and one-half inches.

Case 4: J. W. A., Riverside, Cal., age sixty-five years, always had good health, never had had a fracture. Six months before I saw him, fractured the middle third of both bones of left leg by direct violence. I operated him November 26, 1898. There was a large amount of thick fibrous tissue between the fragments. The ends of the bone were sawed off and the fragments wired together with silver wire. He remained in the hospital five weeks, when the limb was put in plaster of paris splint and he walked about on crutches. No suppuration or trouble of any kind followed the operation. One year after operation, I examined the limb and found motion at the point of fracture. His general health at that time was not very good. The wire has not been removed.

Case 5: Miss B. of Los Angeles, Cal., age about forty years, healthy, never had a broken bone, family history good. December, 1902, while out walking, slipped and fell on the sidewalk and fractured the patella of left knee. She continued to walk on the painful and swollen limb for eight weeks, when she consulted Dr. W. E. Becket. Dr. Becket recognized the trouble and ordered hot fomentations and advised operation. I operated her at the County Hospital in presence of students of the Medical College, eight and a half weeks from accident. There was a transverse fracture of the patella. The capsule was stretched, swollen and very much infiltrated, the fragments were separated 2½ inches. A slice of bone was sawed off from the fragments and the bones wired together with No. 20 silver wire. A portion of the thickened capsule was removed and the fascia and capsular ligaments sutured with catgut. The limb was placed on a posterior splint and massaged every other day. On the fifth week a plaster of paris splint was applied and she was ordered to walk about on crutches. There has been no suppuration or pain and she can bend the knee about three inches.

Case 6: J. E. W., of Bakersfield, Cal., age twenty-eight, weight 190 pounds, never been sick but had suffered three fractures, two of forearm near the wrist and one of the left leg just above the ankle. On the 19th of May, 1902, while riding in a buggy, the horse became frightened and ran away; he was thrown out of the buggy and struck the left thigh against the corner of a post, breaking the bone at the upper part of the middle third. The end of the lower fragment was forced through the soft tissues and clothing and was covered with dirt. The fracture was treated for ten and one-half weeks by a plaster of paris splint extending from knee to hip; Buck's extension with a weight of from 18 to 22 pounds to foot. At the end of that time a felt splint was placed on the thigh and he was ordered to go about on crutches. I operated him September 6, 1902. The bone was broken obliquely, the fragments overlapped about two and a half inches, there was a large amount of fibrous tissue between and around the ends of the fragments. The ends of the bones were sawed off with a Gigli saw and wired with a No. 20 silver wire. He remained in bed ten weeks and in his room one month, when a plaster of paris splint from the ankle to the hip was applied and he was again ordered to go about on crutches. On the second of February, 1903, while visiting his home, a superficial abscess opened in the center of the cicatrix. At the present time he is in good condition, the union of bones is very strong and his physical condition is good. Shortening 2½ inches. The wire has not been removed and produces no trouble.

The failure to obtain union in the case which I report was due to one of two causes—either the

fracture was never reduced at the time of the injury or at the three subsequent attempts at reduction before I saw him; or that the fracture once reduced, the fragments could not be held in apposition. In this case where a fracture was within five inches of the knee joint, the origins of the gastrocnemius muscle from the linea aspera above and behind condyles of femur, made it extremely difficult to reduce and much more difficult to retain ends of shaft in normal alignment and position. The insertion of the adductor magnus muscle acted on the lower fragment and drew it inwards and upwards so that there was really only lateral contact, the ends being free in the muscles. Skiagraphs Nos. 1 and 2, taken when the case came into my hands, show this. The lateral view shows the lower end of upper fragment resting on the anterior surface of the lower fragment, nearly two inches from the seat of fracture.

I do not wish to make any comments on the skill of the surgeons who first saw and treated this patient for eight weeks, they being in a mining camp and not having the benefit of X-ray diagnosis nor facilities for operation and hospital treatment. The information, history of accident, treatment, etc., I have is the opinion of the patient and his friends, and that may not be entirely accurate. Suffice it to say the doctors at the mine attempted to set the fracture four times, and before coming to Los Angeles, the man had an extension apparatus on and thirty pounds of weight attached to his leg. He was brought eight hundred miles on a cot in a baggage car with an ordinary internal and external lateral splint on. The leg and foot were very hard and much swollen and the journey was very painful.

PLATE I.

PLATE II.

D. J. aet., forty, miner, born in Wales, weight 160 pounds, unmarried, always had had good health, habits good. While working in mine September 19, 1902, as timberman, was struck on the shoulder by a falling rock and knocked through the scaffolding, sustaining a simple transverse fracture of right femur, five inches above knee joint. The man was at once taken to the mine hospital, fracture dressed and splinted. During the following seven weeks, the condition of leg not being satisfactory and fragments not being in apposition, three other attempts at reduction were made without permanently keeping the ends of bone together. Extension apparatus was used, even as much weight as thirty pounds being applied, but ends of bone overlapped.

On arrival at Hospital in Los Angeles, skiagraphs Nos. 1 and 2 were taken and on November 15th, assisted by Drs. Lasher, Coffey and Dillon, the leg was freely incised, ends turned out with great difficulty and sawed off, the lower end being quite pointed; the bone was drilled and malleable iron wire used as a suture; rubber drain was inserted and wound closed by silkworm gut suture. A plaster cast was applied from toes to groin and a small fenestra cut over wound. Man improved in condition but discharge continued, callus was thrown out.

Skiagraphs Nos. 3 and 4 were taken December 27, and great dismay occasioned by finding the wire

PLATE VII.

broken and the bone ends in almost as bad a position as when first seen. I decided to remove the wire, which was keeping up the suppuration.

On January 2d, with the advice and assistance of Drs. Lasher, Sherman, Coffey and Dillon, the wound was reopened and wire removed but the fragments had to be entirely separated to do so. After freshening the ends of bone they were opposed but *not* wired and a plaster spica of leg and pelvis applied, knee being bent to an angle of 20°.

In six days a skiagraph was taken and bones were found to be in bad position, ends to have slipped past each other, and on January 12th leg was freed of bandage and prepared, wound reopened and ends turned out with as much or more difficulty than at first; ends freshened with saw and rongeur, drilled and No. 15 silver wire suture used; then leg and pelvis were encased in thick spica plaster dressing and knee bent this time to an angle of 45°. A large fenestra was cut to ensure drainage. This dressing was left on until February 15th, when it was replaced by a lighter dressing reaching only to groin and below calf. Skiagraphs 7 and 8 showed lateral angularity and when the dressing was changed, the callus was bent and alignment slightly improved. I had the man sit up in a rolling chair and in two weeks gave him crutches. He had been in bed so long that he had not strength to walk as early as I could have wished. March 19th the plaster dressing was entirely removed and massage of knee and leg begun. The callus was so large that it caused edema of leg and ankle and has made motion of the knee and ankle slow and difficult. The discharge continuing, the wire was removed April 12th and the sinus rapidly closed. Last skiagraphs were taken April 4, showing good results.

All the skiagraphs shown of this case except the last two, were taken with small portable machine at bedside of patient, and all of these except first two, were taken through the plaster dressing. The last two were taken by Dr. Soiland at his office with the large machine, but through all the walking clothes.

CONCLUSIONS.

The difficulties encountered in the treatment of this fracture, which were almost entirely due to the proximity to the knee joint and to muscular traction, have taught me many things which I wish to emphasize so that others may avoid the errors I made. These points which I wish to make are as follows:

First—The futility of any treatment except incision, turning out the ends of bone, freshening ends and suturing with heavy silver wire or clamp. The usual objection to silver wire, that it must be removed, is contradicted by Dr. Lasher's cases Nos. 4 and 6, in which the wire still remains, an innocuous foreign body. In my case I doubt if the clamp would have maintained the ends in position as well as wire suture. The second operation without wiring proves the necessity for the suture, for I had immobilization of thigh on pelvis and flexion of knee and long plaster cast, yet ends slipped by each other and assumed almost as bad a position as when first seen.

Second—The necessity for absolutely immobilizing thigh and leg on body by a plaster spica bandage from toe to waist. One of the chief causes of the breaking of the wire after the first

PLATE VIII.

operation was the fact that the cast extended only to groin and allowed a slight movement of the ends of bone upon one another during the necessary movements of the patient in bed.

Third—Relaxation of calf muscles by flexion of knee to an angle of 45 degrees. By flexion to 20 degrees in second action, complete relaxation of gastrocnemius muscle was not obtained, with resultant failure to keep ends opposed, so that in the last and successful attempt to maintain absolute immobility and secure union the 45 degree angle was a most important factor.

Fourth—The importance of equable pressure about the entire limb, especially at seat of fracture. I feel that the angularity shown in the last skiagraph is due to too large a fenestra cut in the plaster bandage for drainage purposes. Into this opening the powerful extensor muscles drew the fracture and almost defeated the good position in which it was held by the wire suture. Had there been no fenestra, or a very small one, this lateral displacement would not have occurred. When this condition was discovered, on removing the heavy cast, the leg was bent as much as possible, but the callus was too hard to be much straightened.

While the defective alignment and amount of shortening is far from satisfactory to me, the man has a strong, well-united bone, and is perfectly satisfied with result. He came here with little hopes of a good leg, and before the third operation begged me to amputate it, so that now he believes his leg, while not a thing of beauty, is many times better than the best artificial leg manufactured. Some of the pictures shown I am not proud of, but exhibit them as a part of a case which by patient treatment has terminated satisfactorily.

By this bald statement of fact and the confessions of my mistakes, I hope that I may prevent some one of you from making similar ones. Instead of following the usual course of the society essayist, I have emulated the example of my distinguished teacher, Wm. Goodell, who, when I was his student, was so frank and admitted so many errors in his operations at his clinics, that we used to wonder if he ever did anything to his own satisfaction. Now I know how great and courageous he was to be willing to analyze his failures for our instruction and future benefit.

Within the past two or three years the number of the animal parasites known or suspected to be the cause of disease has been notably increased, and if the extension of our knowledge in this direction continues at the same rate, we may have to modify our terminology to some extent, and instead of the name "bacteriology" as a branch of medical science, use some more comprehensive term. One of the latest additions to the list is the *Myxococcidium stegomyiae*, which Drs. Parker, Beyer and Pothier of the Public Health and Marine Hospital Service find as a regular denizen of the yellow fever contaminated mosquito.—*Journal of the A. M. A.*

A STUDY OF THE HEALTH OF UNIVERSITY GIRLS; THE RELATION OF THE PHYSICIAN TO PREVENTIVE MEDICINE.*

By MARY E. B. RITTER, M. D., Berkeley.

WE are hearing constantly of the ill effects of higher education upon the health of women.

My personal observations in the University of California for the past thirteen years have led me to believe that the majority of college girls and boys *improve in health* during the four years of their college life, at least those students who take their work seriously and rationally. There are, of course, the social butterfly who tries to dance all night and study all day, and the "dig" who burns the midnight oil too assiduously in a close, stuffy room; and these unwise young people of both sexes do not as a rule make a success of either education or health. But certainly such failures can not be charged against the necessary regime of college life, but rather to lack of common sense. On the other hand, it is not uncommon for a thin anemic girl to gain 12, 15, 20 or 25 pounds, the first year in college. However, "there is no smoke without some flame," and there is so much smoke here, so much agitation over this question of the relation of education of women to health, that the reasons for this should be carefully investigated.

My work as medical examiner, has led me to study the condition of health of these young women before they undertake the taxing years of their university work, to determine, if possible, whether the causes of the later break-down are present *before* this time, or whether they develop during the college course and in consequence thereof. Not only do I find, as a rule, the causes of later collapse present when they enter college, but I also find that the impaired health can often be traced back to some illness incident to childhood, to improper food for the growing child and other unhygienic conditions. And following back from branch to stem, from stem to root, in striving to answer the various "whys" in these cases, I have come to feel that the relation of the physician to the families of his patrons is largely responsible for the present sad condition of health of our primary, grammar, and high school children, for it is at these ages that the damage is done.

As it is now, and has been in the past, the medical profession alone has been generally trained in the branches of hygiene and sanitation, and upon them the community at large have depended for direction. Has the medical profession fulfilled its duty in this respect? Has the individual physician noted and corrected the

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

unhygienic conditions in the homes of his patients as minutely as he should for their best weal? Has the family doctor, when attending the contagious diseases of childhood, carefully instructed the mother about the various sequelæ which might bring life-long injury in their train; has he noted the faulty postures of the growing child, the pallor of oncoming anemia in the girl approaching puberty, and warned the mother of its dangers—directing proper food, out-door life, a rest from the nervous strain of school work, and all the other essentials to sensible and hygienic living at this important period? The physician might reply, "I have no time for this. I make my visit, prescribe for the sick child, and must be on my way to others." Too true, the old family physician scarcely exists any more. The tendency to specialize, both on the side of the profession and of the laity is rapidly dispelling that old-time constant relation of the doctor to his families, when he feels confident of ushering all their children into the world, and of attending them in their illnesses afterward. The advantages to both parties of specializing no one will deny, but there are serious disadvantages also, and I wish to enter a plea for more careful observation of the home and the growing children by physicians, and particularly for more minute instructions to mothers about the care of their children whether sick or well,—not to be content with prescribing only for the prominent symptoms which necessitate the professional call. Especially I make a plea for more careful instruction about those diseases so frequently neglected, because such common incidents of childhood as to be considered almost natural—such diseases as whooping-cough, rheumatism in its lightest forms, so light and so common as to be dubbed "growing pains" (as if it were painful to grow) —yet so often relentless in their effects, so frequently accompanied by a slight endocarditis and resulting in a lifelong injury to the cardiac valves.

It is doubtless fair to presume that the girls who enter the University of California are an average lot, neither stronger nor weaker, physically, than their sisters who attend other institutions of equal rank in their own State or in Eastern States. Fully two-thirds of the women in California who aspire to college life enter the University of California. Gymnasium work is required of all students during the first college year, and before being admitted to this work, a physical examination must be submitted to. This consists of an examination of heart and lungs, history of bodily functions and of previous health, family history as regards constitutional tendencies or the so-called hereditary dyscrasia, and measurements to determine symmetry and posture of body. With the young woman particular attention is paid to the history of the menstrual period.

During the past two college years I have examined 660 freshmen girls, and upon these I base my remarks, as there is but little variation in percentage from year to year, hence larger numbers are not necessary to establish their approximate correctness. Of this number

176 or 26 2-3% are subject to headaches,
193 or 29¼% are habitually constipated,
86 or 13% are subject to indigestion,
3 or ½% had defined tuberculosis,
7 or 9-10 % had goitre,
57 or 9% were markedly anemic,
105 or 16% had abnormal heart sounds,
62 or 9 1-3% more had rapid or irregular pulse,
193 or 29¼% were subject to backaches,
443 or 67% were subject to menstrual disorders,
10 or 1½% gave histories of having broken down in grammar or high school, two from "nervous prostration."

In contrast to these figures 149 or 22 6-10% reported themselves as free from all aches or pains or functional disturbances.

I cite this disheartening list to emphasize my point that most of the ills are sown in early girlhood from which the harvest of semi-invalidism is reaped in mature womanhood. I also wish to emphasize the fact that the majority of these ills are preventable; that more wisdom on the part of the mothers could avoid these deplorable conditions. My personal experience with mothers leads me to consider the majority of them as unwise as their daughters regarding hygienic laws. In the future, when more and more educated women have become mothers, and when it has become a part of every college curriculum to require for all students instruction in hygiene and sanitary science, I feel sure these high percentages of "unhealth" as Huxley terms it, will be notably lessened.

That this prediction is founded on fact seems indicated by quite extensive data collected by the American Association of Collegiate Alumnæ in which they show that the ratio of infant mortality is decidedly lessening among the children of college women. Surely we should expect that the mental discipline they have received in college would fit them better to fulfill any vocation in life, especially the responsible vocation of motherhood.

I shall not take your time to discuss the minor ills of the above list. In the 105 cases of abnormal heart sounds, 22 have left college and been lost sight of. One gave a history of having been a "blue baby," but is a well developed girl now. Another had been treated for a year for acute cardiac dilation resulting from too vigorous mountain climbing when very anemic. Fifty-five his-

tories pointed to a rheumatic diatheses, with combinations of the following diseases:

Acute articular rheumatism	12
Rheumatism followed by endocarditis	4
Rheumatism and severe pertussis	8
Severe growing pains	18
Growing pains and tonsilitis (repeatedly)	10
Growing pains and tonsilitis and chorea	1
Growing pains and scarlatina	3
Growing pains and typhoid	1

Combinations of diphtheria, scarlatina, spinal meningitis, pneumonia and severe pertussis in 19 cases more. Endocarditis had been recognized as a complication of one case of each of the folfollowing: Typhoid-pneumonia, malaria and purpuria. Malaria for years was the history of three coming from districts noted for the *anopheles maculipennis.* One interesting case of exophthalmic goitre had been sent from Colorado to see what change in climate and altitude would do for her. She improved somewhat. In fifty-nine cases out of the 105 compensation was good and the girls were unaware of any disturbance. With the others the record shows a report of palpitation and of getting out of breath easily. Forty-six were markedly anemic. Evidently many of the murmurs were haemic for with improved health 20 have nearly or quite disappeared.

It has been especially amazing to note the improvement in many of these anemic cases. Girls whom I at first advised to go home—to take at least a year's leave of absence in which to regain their health, before entering college, have many times persisted in remaining, and have gained 10, 20 and 25 pounds and in one case 40 pounds. This remarkable gain I ascribe to several factors, first, change of climate, for fewer, if any of the resident girls have made such phenomenal increase in weight; second, to the regular but gentle and selected exercise required four times a week in the gymnasium, followed by a tepid spray bath and a brisk rub; third, the required gymnasium work brings the girls under constant supervision and they have been urged to take plenty of sleep, outdoor air, etc., and have been required to report frequently upon these matters. The fact remains, nevertheless, that the gain has been made during and in spite of the nervous strain of college life.

To sum up, all of these abnormal hearts seem attributable to one of two causes—either sequelæ of infectious diseases, or the result of anemia. Both causes are largely preventable. We all know that proper care for a sufficient length of time will at least mitigate the effects of the endocarditis which so frequently complicates certain infectious diseases of childhood. We all know that hygienic living, the right kind of food, plenty of air, exercise and sleep will prevent anemia in the adolescent girl.

Dr. C. B. Brown in a statistical report before this body in 1896 demonstrated that among 1000 San Francisco and 287 Oakland schoolgirls, insufficient breakfasts, cold lunches, lack of outdoor exercise and inadequate sleep were prevalent factors in these years when girls are apt to show the first signs of failing health, i. e. in the ninth grade of the grammar school and first two years of the high school—the ages being from 14 to 16 years. At this time the social life of girls begins, and also more arduous study, so that among these 1300 girls scarcely any went to bed before 10 o'clock habitually, and frequently much later. Late nights, lack of sleep is the *bete noir* of the student's life. I repeat, with plenty of sleep, proper food and exercise there is very little danger of mental application injuring the health of any one.

In studying the menstrual history of these 660 girls I find the California girl matures at 13.5 years and that the period averages 4.6 days. This average while exact for the majority is made up of wide extremes, from 10 to 18 years and from 1 to 21 days. With regard to the 443 reporting menstrual disorders, 230 or 51.6% suffer from dysmenorrhoea, varying from slight cramps for a few hours to being confined to bed for 2 or 3 days; 117 reporting severe, 109 moderate, and 113 slight pain. One hundred and sixteen or 26.3% reported irregularity, 71 or 18.3% too late, 45 or 8% too frequent. Of course many of these cases overlap, i. e. pain and irregularity being most commonly coincident.

Thirty-three gave a history of some form of uterine or ovarian disease for which they had previously had local medical treatment or operative procedures; in eleven cases displacements, in two metritis, one stricture of os uteri, twelve menorrhagia and five ovarian inflammation.

These figures seem appalling and I hesitated to report them, yet we all know that within the limits of our personal observation the majority of women are more or less inconvenienced by the menstrual period, a normal function, or one that should be normal, and it behooves us to look to the causes when we find this condition so prevalent among young girls.

Allowing for the natural monthly rhythmic ebb and flow of the feminine system and the fact that all the vital activities seem to be highest a few days before the menstrual epoch and lowest at its close, there is here an added range that is abnormal. Allowing for the evil effects of the all too prevalent constipation, for the chilling due to wet feet in the rainy season, often producing endometritis, there is still too high a percentage of suffering.

Judging from the fact that of the 33 cases who had had pelvic examinations are known to be due to displacement of the uterus and to the large number of such cases diagnosed by the gynecologist and the general practitioner in later years, it is fair to presume that a much larger

percentage of displacement of the pelvic organs is present at the onset of the menstrual function and is accountable for a considerable degree of the suffering experienced by young girls. In one of the largest gynecological clinics in Berlin, the head surgeon assured me that the majority of such cases in women who had not borne children were congenital. This is a hard position to either prove or refute, but until we have removed all probable causes *during growth,* it seems unfair to fall back upon the undemonstrable "prenatal" conclusion.

In watching school children and University students it has been impressed upon me that the almost universal faulty posture in which the body is held is largely responsible for this particular abnormality. When the body is held erect the pelvis is tipped at such an angle that the symphysis pubis forms the lowest bony point of the trunk and is a support for the pelvic and abdominal organs. The inner surface of the sacrum forms almost a right angle with the perpendicular plane of the body, and a plumb line dropped from the articulation of the third and fourth lumbar vertebra passes *in front of the symphysis pubis* and one from the middle of the sternum 2½ to 4 inches in front. Thus the weight of the abdominal viscera should not fall *upon* the uterus and ovaries, but in front of them. The upper edge of the symphysis pubis and the abdominal muscles attached to it and to the wings of the false pelvis should support the abdominal organs. But what do we find?

Taking school children of all ages as they are examined by the directors of physical culture we find the bodily posture is almost universally incorrect. The first thing noted by the eye perhaps is the asymmetry due to standing on one foot. This almost universal fault lowers the shoulder and makes the hip more prominent on the side used habitually, while the spine curves slightly to the other side. This deformity is not as a rule sufficient to cause any discomfort but it does not add to the beauty of the form divine, and beauty of form is certainly a desideratum in life. A well poised body, a stately carriage is always attractive, while a misshapen body with a slovenly posture and gait detracts in a like degree.

But the reprehensible posture, and the one most universal, is a faulty poise of the body anteroposteriorly. (So common is this, that if a student enters the examination room with head erect, chest elevated, the various curves of the spine in normal position, with the pelvis at an angle of 30° to the perpendicular and with knees firm, the reply to the question, "You have had gymnasium work before?" is usually answered in the affirmative.) The ordinary posture is relaxed knees, pelvis tipped upward, shortening the distance between symphysis and sternum, protruding the abdomen, the lumbar curve lessened, the dorsal exaggerated, the shoulders drooping forward, chest flat and chin projecting. In the worst cases the plumb-line from the sternum then falls *behind* the symphysis and that from the lumbar vertebræ through the middle of the pelvis That this position robs the pelvic and abdominal organs of natural support of the symphysis pubis is evident. That it must result in displacement of the pelvic organs seems also evident. And this, it appears to me, must be one prolific cause of the very large percentage of menstrual disorders, to say nothing of the injury to the general health by lessened room for lung expansion and for stomach, liver and intestines to perform their functions. And when to the weight of the abdominal viscera is added that of heavy skirts and the pressure of tight corsets, the above abnormal conditions are increased in large measure. With the body erect and the pelvis at its normal angle, the center of gravity of these heavy organs and the line of direction of their weight falls in front of the uterus, or at least, only impinges upon the superior and posterior surface, but the moment the pelvis is rotated forward the lumbar curve is lessened, allowing the abdominal viscera to move relatively backward, while the pelvic organs move forward, hence the weight of the superimposed organs bears directly upon the fundus of the loosely swung uterus, causing downward pressure, and as this pressure is downward and backward tends to produce prolapsus, retroversion and perhaps retroflexion. Dr. E. M. Mosher of Brooklyn, ex-dean of women and professor of hygiene in the University of Michigan, has studied this subject carefully and made digital examinations of the pelvic organs in a large number of cases, with the patient standing in her habitual posture. She discovered "exaggerated intrapelvic pressure in all cases when the pelvic inclination was more than 57° and the pressure increased as the angle increased. If one of these patients was placed for a few moments in the *modified* knee chest position (with abdomen well supported) to drag the intestinal loops out of the pelvic cavity, and re-examined with the pelvis in normal position (at an angle of 45° or less) the intrapelvic pressure was not observed. It returned slowly, however, when the habitual posture was again resumed."

This posture of the body is so common among both men and women and assumed so generally by children that there must be some deep underlying cause, some instinctive tendency that produces it. Doubtless most of us can remember being chided in childhood for not standing erect. This is one of the constant battles mothers wage with their growing children, although frequently they lessen the efficacy of their corrections by a bad example. Telling a child to throw back its shoulders is trying to relieve the effect without

removing the cause, and the physician who orders shoulder-braces for the ordinary round shoulders is decidedly putting the cart before the horse, or would be like strapping the top of the leaning tower of Pisa to the adjacent cathedral to try to draw up the sunken foundation. In our human frame as in an architectural structure when the mass it out of plumb the difficulty lies in the foundation and in the instance of our bodies in relaxed knees. This seems an easier posture and doubtless does require less exertion of leg and back muscles, at least until those muscles are developed by practice. The military position with knees "locked" requires the use of all the leg, thigh, the back muscles, especially of the posterior femoral and tibio-fibular regions. To hold them thus for any length of time is fatiguing especially to the rapidly growing child, and it is only long muscular training that makes the posture habitual. A public speaker who stands unusually erect, recently told me that whenever he arose to make an address and felt his knees firmly locked, his inner consciousness reverted to the military discipline of his college days.

It is impossible to assume the correct posture without straight firm knees, and again if knees are "locked" and pelvis held in place it is impossible to let the shoulders droop forward. One must then hold the shoulders back, the head erect and elevate the chest in order to keep the body in equilibrium.

My own theory of this almost universal propensity to stand with knees relaxed is that it is a case of inherited tendency to certain muscular coordinations i. e. a phylogenetic tendency. The mammalian body was originally constructed to go on four limbs, and the change to the erect posture has been acquired with great difficulty. In all quadrupeds the knee joint of the hind leg is bent forward at a decided angle. This angular limb has through evolution become the straight leg of man, but even in our nearest anthropoid ancestors who can assume the erect position the knees are still bent at a wide angle and whenever a chimpanezee or orang wants to stand his straightest, he clasps his hands behind his head to balance himself. Ordinarily these man-like apes stand so stooped that it is necessary for them to rest their hands upon something for support. As their arms reach almost to the ground this is very easy.

In developing from the quadruped to the biped the relative position of the pelvis has not been much changed, i. e. it points backward in the biped almost as in the quadruped. In assuming the erect posture the spine has bent upward almost at a right angle at the juncture of sacrum and lumbar vertebræ.

Looking at the human body from an architectural standpoint we find the feet or pedestals supporting two movable columns spanned by an irregular arch, the pelvis, which is itself oblique and fitted by loose ball and socket joints to the oblique heads of the femurs. This unstable keystone supports a heavy movable and curved column, the spine, to the anterior side of which is attached the weight of the trunk organs, and from the superior corners of which hang two heavy movable columns, the arms, and on the summit is a movable ball, the head. All these weights, all these mobile supports must be held in place by the constant play of muscles, contracting and relaxing with every movement of the body.

From a phylogenetic standpoint the posterior muscles of the legs are comparatively undeveloped, at least for their present task, for it is only in man that these limbs even approximate the perpendicular. Hence the erect posture is a matter of education of the muscles in mankind, and it seems to be the natural tendency to revert to ancestral conditions and stand with knees slightly relaxed.

The young child from the time he learns to walk until five or six holds himself more erect than his ten or twelve year old brother, who is going to school. Two reasons may be assigned for this: The body of the small child is more compact, not only being much lighter in weight, but the legs are both actually and relatively shorter, and the shorter proportionately a muscle is the more easily it can perform its work. In the second place the young child has no duties imposed upon him, never has to hold his body in wearisome positions for any length of time; during his waking hours he is constantly on the move, contracting and relaxing different sets of muscles so that none become overstrained. But there comes a time when the chubby child begins to stretch out rapidly into the lean boy or girl; the skeleton and its muscles grow often with marvelous rapidity and with each added inch of bone the muscles have a more arduous task to keep the loose jointed architectural pile in plumb and just at this age commence the long hours of confinement in school, and the illfitting seats. The restless child that heretofore has been only a free young animal twists and turns in his seat until he finds the position requiring least muscular exertion, which is to deposit the upper portion of his weight on the desk in front, resting on his elbows or forearms, thus losing the normal spinal curves. Standing in class is a most unrighteous interference with his natural freedom and a very few moments serve to fatigue him and he shifts from one foot to the other and back again until he finds the posture of least resistance, which is either the one-sided posture first noted or the second posture with knees relaxed and generally a combination of the two. That these postures throw the body out of plumb, any one can demonstrate upon the nude body of a child or better still by

comparing the body of a child who holds himself erect with one who has assumed these improper attitudes.

The evolution of the practice of medicine from the old time family doctor, who was physician, surgeon, obstetrician and every thing needed in one, has been in two directions which are at first glance more or less antagonistic, the one being specialization, the other preventive medicine. No one will deny for a moment the advantages of specialization. The field of medicine and surgery have become too broad for any one person to cover, and the man who devotes himself to one branch can undoubtedly do better work than the medical man who is jack of all branches and master of none.

On the other hand those great provinces of research which have yielded such rich returns concerning the causes of disease—all that has been learned concerning fermentation, bacteriology, immunity and asepsis, tend to develop the profession along the line of "prevention of disease." It is better to keep the human being healthy and in full possession of its powers than to resurrect a maimed body from the operating table or a weakened system from the ravages of the tubercular parasite; so the role of the physician who bends all his energies to preventing illness of any kind is no less noble, even if less spectacular, than that of the Great Healer, be his results obtained by scalpel or medicine chest.

There is no time to develop this thought. I can only refer to an address on the "Practice of Medicine in the Twentieth Century," in which the development of this tendency was predicted. The writer pointed out the great need of more attention to preventive medicine. and how it could be fulfilled, and he prophesied that before the end of the new century specialists on this line would be more numerous than in any other, that before the year 2000, a young couple upon starting a home would select their physician, whose office it should be to keep them and their children in health. To him should be given all the information possible about their own physical beings, and as the children came along, he should watch over them and guard them, not only from disease but also from those insidious, unhygienic conditions which undermine the health of our young people of to-day.

This seems utopian, and would of course necessitate a change from the present fee system, so much per visit or per office consultation, but changes are the wellspring of our progress, and more than one conscientious physician realizes that the existing relation between patient and practitioner is not ideal.

But this is in the future; what can be done now? No physician hesitates to spend his time over the microscope or the test tube to determine for his patient the cause of the attacking malady. If he could only spend as much time in instructing the parents how to make their homes truly hygienic, what kind of food to give their children, the urgent necessity of plenty of sleep, of regularity in the bodily excretions, the ill effects of incorrect postures *and how to correct them,* the care necessary during and subsequent to the lightest form of infectious diseases, the conditions so prevalent among our young people and which pave the way for our invalids, would be largely obviated.

Summary: I have not expected to establish the positive proof of facts by the figures here presented. The personal equation of the individual questioned enters too largely into such statistics to make them entirely reliable, but they may be safely taken as indices pointing toward the main conclusions and these I would sum up as being:

1. College education does not necessarily injure the health of women.

2. That the seeds of subsequent ill-health are sown at an earlier age, and do not develop in consequence of the college curriculum.

3. That the causes of ill health are mainly avoidable and due to unhygienic living or to the sequelæ of infectious diseases.

4. That in a large proportion of women students the regular routine of college life, with the mental stimulus of a purpose, improves their health and fits them to become better disciplined and more intelligent mothers.

5. That more careful observation on the part of physicians with instructions to mothers would in large measure obviate the present unsatisfactory conditions.

DIPLOMA VS. CERTIFICATE.

By WILLIAM C. TAIT

Attorney for the State Board of Medical Examiners.

THE present medical law is running the gauntlet of the courts. Such was the fate of its predecessor of 1876. It is that of all similar legislation. The present law was not obtained without a struggle. Like all legislation which aims to elevate the standard of the medical profession, it met with opposition at is birth; its history has been a struggle for existence. The high standard which it established exposed it to the attacks of those who thought the former system had given them vested rights, and whose interests the measure injured the moment the Board of Examiners, the organ provided for its administration, sought to enforce it. The first legal attack upon this law began last fall. Courts time and again have declared that the remedy for unjust or oppressive medical laws lies with the Legislature, not with the courts. The warfare was carried to the Legislature, where the battle

was lost. Renewed in the State Medical Society, the result was the same. The court is now the sole battle ground.

The opponents of the law, although numerous, can nevertheless be classified. At the last session of the Legislature they were arrayed in three columns, with as many banners and as many bills. The struggle there was that of the diploma vs. the certificate. One of these forces struck at the State Medical Society. The others sought to enthrone the diploma and the medical college; the Board of Examiners became a board of registration; the diploma was elevated above the license; the medical faculty of the past, present and future usurped the place of the Board of Examiners. The Legislature stood by the present law and the certificate; the cause of the medical college died in the Senate, where it originated; the Legislature refusing to subordinate the State to the medical college.

The legal opponents of the law consist of two classes: those who attack it on all fours, hoping to overthrow it altogether, and those who pretend to desire only the destruction of the Board of Examiners. The first class is composed of individuals who have been arrested and prosecuted for practicing without a certificate. It consists exclusively, I regret to say, of graduates of the regular medical institutions, of candidates who failed at the state examination and despite that fact, saw fit to exercise the privileges which belong exclusively to the duly licensed practitioner. Having openly engaged in the practice of medicine in violation of law, they were apprehended and prosecuted by the Board. The attack on the medical law emanates from this class of illegal practitioners. No illegal practitioner without a diploma, although many such have been arrested, has, to my knowledge, assailed the law. The man with the diploma fights his own battle and that of the latter; the success of either is the triumph of both; their violation of the law made them equals; the downfall of the medical law would place them upon a footing of equality. A licensed practitioner of the regular school whose certificate the Board seeks to revoke for unprofessional conduct, has also arrayed himself against the law, as well as against the Board. If the law perishes, then unprofessional conduct is no longer an offense entailing the loss of a certificate. Natural law sanctions and encourages unprofessional conduct. This particular practitioner loses a license always subject to revocation by the State which grants it only upon condition that the privilege be not abused, to gain an unrestricted license to disgrace a noble profession and prey upon the public until the next session of the Legislature. A college man who failed at the examination preferred to commit a crime rather than prepare himself for the next examination. When arrested for the crime, rather than confess his guilt and pay a fine, he preferred to fight the battle of the vilest quack. Every law, regular upon its face, medical or otherwise, is presumed to be constitutional until the contrary is shown beyond a rational doubt. Any other rule would be fatal to law and order. Yet the illegal practitioner of this class asserts the right to violate the law until the courts have passed upon its constitutionality. When arrested, he runs for a writ, and having obtained it, makes it serve the purpose of a license. Throughout the whole proceeding, while the law stands and after it falls, should it do so, the status of such an individual is precisely that of the quacks and empirics whom his profession teaches him to despise and above whom his college education and the certificate which he might easily obtain by a slight exertion seek to elevate him. It is possible to test the constitutionality of a medical law without first committing a crime.

The holder of a diploma from a reputable medical college is ordinarily presumed to be both ethically and scientifically fit to practice his profession. This presumption used to be conclusive. Such was practically the case in this State under the old law. The diploma was practically the license, the old boards accepting and registering diplomas and granting licenses upon them. The college faculty was then practically the board of examiners. For twenty-five years the board of examiners, were, as to-day, elected by the same state medical societies. This monopoly of the societies was attacked in the courts, but was sustained by the Supreme Court. The attack did not come from the medical college, or from the man with a diploma, but from the quack. This was the golden age of the medical college. Dr. Winslow Anderson, member of the Board of Examiners, elected by the State Medical Society, as the Legislature had directed, precisely as Dr. Tait and his fellow members are to-day elected, signed Dr. Tait's license, which he received upon the registration of his diplomas. Every graduate of the College of Physicians and Surgeons received his license in the same manner. No wonder no member of that faculty thought of seeking to oust the Board of Examiners, or of striking down the power of the State Medical Society. The license was at that time subordinated to the diploma. The Legislature of 1901 changed all this. The situation was exactly reversed. The Legislature enthroned the certificate. This was a hard blow to the medical *alma mater*. The law did not, however, desire to destroy the latter. On the contrary, it gave it a monopoly, by confining the right to a license to the college graduate. It went even further, and by the Association of American Medical Colleges accorded a voice to the college, associating it in the task of elevating the medical profession, which was the prime object of the law. But it also, by a system of checks and safeguards, wisely provided for the possible abuse of the monopoly. Was the

diploma obtained in the regular course of instruction? The law required an affidavit as to this. Are, then, medical faculties guilty of fraud? Do they sometimes grant diplomas without a full course of instruction, without an examination? They do; and the best witnesses of the fact are ex-college professors and alumni. The examination is the principal check which the State of California imposes upon the medical diploma. It is the examination which has precipitated the struggle between the diploma and the certificate, between the State and the medical college. It is this feature of the new medical law which brought three medical bills before the last session of the Legislature. The examination, and not the alleged monopoly of the State Medical Society, precipitated the attack on the medical law. The suit just filed against the Board of Examiners is the last phase of the struggle between the diploma and the certificate. The new law, following the precedent of that of many other States, attempts to balance the one against the other.

In 1888 the Supreme Court of Michigan sustained a law granting the monopoly of the practice of medicine to college graduates and to physicians in practice for a certain number of years. This law caused the dissenting members of the court to speak of the aristocracy of the diploma and of the folly of a law which failed to guard against the usurpation of the title and its abuse. They insisted that such a power could not safely be granted to medical colleges, declaring that the latter had already, and, if unrestrained, would continue to degrade the title of physician. As the court of Vermont expressed it, they would render that title as worthless as the witty French minister wished to make titles of nobility—so common that it would be no honor to possess one, and a burning disgrace to be without it.

Our present medical law creates a medical aristocracy, and by its system of checks and balances, and its series of penalties and prohibitions, aims to prevent it from degenerating. Such is the tendency of medical legislation in the United States, an upward tendency coming from the profession and endorsed by legislatures. College students are not always aware of this truth, and I fear college professors are not always careful to warn them of the spirit of arrogance which is apt to go with the diploma; a foolish pride which, when it exists, may cause its possessor to stumble and fall, and to wonder at the accident. In this city, there was recently witnessed the spectacle of a college graduate, who had failed at the state examination, attributing his failure to prejudice of the Board against his college, rather than either to the inefficiency of his instruction or to his own inability, openly and arrogantly engaging in the practice of medicine contrary to law, and suffering arrest and prosecution in consequence of his crime. At the trial, before a jury, he offered no defense. He had none, unless it was that he had a medical diploma. There was no argument for the State except the convincing argument of two prescriptions. He had practiced without a license. A number of his fellow-students had come to court to attend the trial; his preceptor sat by his side. Instead of the triumph of the diploma and the *alma mater* they saw the humiliation of both. To the jury, the license was superior to the diploma, the law to the college. For them the diploma had no magic. Certain ex-professors of his college are unkind enough to affirm that the diploma was obtained without an examination. Much better fared an illegal practitioner without a diploma, an Armenian to whom a high church minister gave a character. The jury convicted him, but with a recommendation to the court. It was true he had prescribed a bottle of medicine and a box of pills, which were exhibited to them. But then the minister testified that a former member of the Board of Examiners had told him his friend might safely practice so long as he did not write prescriptions. The jury therefore thought there were extenuating circumstances. The college man, cured of his folly and his arrogance, presented himself at the next examination like a man. The Armenian empiric has not paid his fine. He is waiting for the men with diplomas to overthrow the law, so that he may escape its payment and practice medicine without fear of prosecution. Perhaps he has written to his oppressed countrymen that he has had a rough experience with the janizaries of the Board of Examiners, but that he has reason to believe that the practice of medicine in California is about to become as free as the worship of God.

The suit to oust the Board of Examiners comes from the diploma, or its representative, the medical college. Dr. D. A. Hodghead of the College of Physicians and Surgeons, is the plaintiff. His rights as a citizen and taxpayer, he claims, have been invaded by the medical law. The law, he says, confers special privileges and rights upon three corporations—the three medical societies which elect the Board; nor are the rights and privileges of the three schools of medicine equal among themselves; one of them receives more fees than the other two, as well as a greater representation. The objection might come with better grace from an eclectic or homeopath. Coming from a regular it has a strange ring. The suit is not directed at any particular board of examiners, but at the State Medical Society. Several boards may come and go before the suit is ended. The object of the suit is to oust the Board so that the Governor may fill the vacancy until after the next session of the Legislature. But how shall he fill it? By appointing five regulars in addition to the statutory number of eclectics and homeopaths? The medical law seems to accord the largest representation to the regular school. But is not this, if we apply Dr. Hodghead's principle of

equality, granting special privileges to a special school, in other words, class legislation quite as much as the alleged special rights and privileges granted to the medical societies? If the contention of Dr. Hodghead is sound, then the Governor should have the absolute power of appointment, or should appoint from all schools equally.

At Sacramento the opponents of the present law sought to give the power of appointment to the State Executive. The Legislature refused to do so. The courts are now asked to oust the Board so that the appointment will fall to the Governor by operation of law. The contention now is that the Board must be appointed by the Governor, that the power delegated to the medical societies is unconstitutional. It has often been claimed, notably by Jefferson, that appointment to office ought to be exclusively an executive function, but very seldom that it must be such. Our state constitution does not make it such. It divides it between the executive and the legislative, assigning to the legislative the right to exercise it itself, or to delegate the power as it may see fit. The power of the Legislature is within its sphere unlimited in this respect. Heretofore the objections have gone rather to the nature of the power, its liability to abuse, rather than to the right itself. Mr. Nougues said in the Bulger case *(45 Cal. 553)*, that such power could only be exercised by the Executive or by the Legislature. Otherwise "the Legislature, if it so pleased, might grant the power of appointment to an insane person, or to an idiot, or to a person convicted of an infamous crime." But all power is liable to be abused. The Legislature realizes this in many of our States when it places restrictions upon the power of appointment conferred upon the Governor. Dr. Hodghead and his friends have said that the present Board of Examiners was composed of invertebrates and rascals. Would they give any Governor the power to appoint these same rascals and invertebrates, or others still worse, to succeed themselves? The Legislature thought the power of appointment could safely be lodged in the principal organs of the medical profession, as they had enjoyed it for twenty-five years; that government of the profession and by the profession was the proper principle. Under the Constitution it might have elected the Board itself, or delegated the power of appointment to any particular individual, corporation or association. It might have, had it pleased to do so, delegated the power to Dr. Hodghead, or to the Trustees of the College of Physicians and Surgeons, or to the faculty of a defunct medical college, some of whose members were recently arrested for practicing without a license. It might have asked eclectics to elect regulars, and regulars to appoint homeopaths, without fear of the unconstitutionality of the measure. Or it might, in view of the past quarrels of rival schools and of the bickerings of a single school, have called upon laymen to do the appointing, or have given the appointing power, as in some States, to the Governor or to the State medical societies, but expressly prohibiting, for good or bad reasons, the appointment of any member of a medical faculty. A general survey of medical statutes and legal decisions sustaining them warrants the assertion, however improbable or dogmatic it may seem, that the power of appointment of boards of examiners is always, even when exercised by governors, not derived from constitutions, but from legislatures; that the Legislature may have any board of medical examiners it pleases, and may likewise lodge the power of appointment where and as it pleases. In some States the boards are exclusively regular and elected by a single state medical society. In others they are mixed. In many States the boards are appointed by the Governor, but from lists submitted to him by certain state medical societies. In some States a board of health exercises the power of appointment; in others, a state university, alone, or in conjunction with a medical society; but nevertheless, always, and in all cases, the power of appointment comes from the Legislature. And as the Legislature may at any time withdraw the power, it is hardly proper to speak of special right, franchise or privilege. It is not a question of right, but of power exercised for a public purpose—of power delegated by the Legislature under the Constitution, at its will, and revocable at its pleasure.

THE CURE OF CROSS EYES.*

By VARD H. HULEN, A. M., M. D., San Francisco.

THIS subject is very little understood by the laity, and I believe rather imperfectly so by the general practitioners, for whom this paper is prepared in order that the latter may properly instruct the former concerning the prognosis and treatment of strabismus.

I appeal to the physicians of families wherein are patients, young or old, afflicted with heterotropia for the dissemination of correct knowledge upon this subject. The family physician has the opportunity, and on him devolves the duty of doing the kind of missionary work which will result in greatly diminishing the number of these unsightly cases.

The parents of every child afflicted with cross-eyes feel keenly such disfigurement of their offspring, and older patients with squinting eyes realize the disadvantage from both cosmetic and business standpoints that this condition is to them; but as so many thus afflicted go through life without pursuing a cure, it must be that the treatment has been found either unpromising, or is considered formidable. If the treatment

*Read at the Thirty-third Annual Meeting of the State Society Santa Barbara, April 21-23, 1903.

is thought unpromising, it must be that the cases coming within general notice have been not infrequently unsuccessful. If the treatment is considered sufficiently serious to deter one from seeking a cure, there is a mistaken idea of what the treatment of strabismus consists.

The term "cross eyes" is herein applied to all cases in which the eyes deviate from parallelism whether convergent or divergent, excluding paralytic cases.

When strabismic eyes are made to remain under all ordinary circumstances in such relative position that no deviation from a normal appearance is detected, they are pronounced cured. But a cure may mean much more than this: it often is the restoration of useful sight to a very defective eye, and in many cases it also is the development of binocular vision.

The ordinary observer will notice only the deviation of the eyes; the patient knows of the deviation and may be aware of the defective vision; the oculist sees the deviation, detects the defective sight and in addition discovers the absence of binocular vision and appreciates the necessity for its restoration.

The proper treatment of non-paralytic strabismus is not uncertain in its results, and does not endanger the sight or normal appearance of the eyes. Ultimately we can expect good results, provided both physician and patient perform their relative and entire duty; and I would emphasize that practically all cases of cross eyes can be cured.

The correct time to begin the treatment of heterotropia is just as soon as the condition is discovered, no matter how young or how old the patient may be.

After the oculist has made a thorough examination of the case, it is his duty to explain in a general way the course of treatment that may be necessary for a final cure, and it is the duty of the patient to submit himself without let or hindrance to the course as determined upon from time to time by his ophthalmic surgeon.

The permanent cure of cases of squint require care, thought, good judgment, skill and time on the part of the oculist.

Some patients request that their crosseyed children be cured by the use of glasses only, as operations upon the eye are feared; others express a willingness to have the treatment by operation, provided the child does not have to wear glasses afterwards. Contrary to such ideas, we do not have a choice of treatment for the relief of this condition. It is true that not a few of our young patients may be cured completely by the wearing of glasses only; sometimes the eyes are brought into parallelism almost instantly by correcting lenses, then again after a simple tenotomy the deviation may disappear; but in the majority of cases the experience is more strenuous for both patient and doctor.

The treatment of strabismus may be classed as optical, medical, surgical and hygienic.

In a large percentage of squint cases, the refraction of one or both eyes is very imperfect and must be kept most carefully corrected by lenses. The patient should know that he is required to wear glasses, not because he is cross-eyed, but because his eyes do not focus properly; his hypermetropia, or myopia, or astigmatism must be absolutely corrected before further treatment is in order. If the patient has no refractive error, there will be no reason for his wearing glasses, no matter how greatly the eyes may cross.

Often the sight of one eye, at least, is quite defective, and the vision both monocular and binocular must by various means at our command be made as nearly perfect as possible, though this may take months of hard work on the part of the patient at his home in addition to the efforts made in the oculist's office.

The treatment should be mapped out systematically, planned conscientiously and applied thoroughly, for incomplete and unsuccessful treatment of cross eyes is an eloquent and lasting reproach to our profession and deters many from seeking our aid. I know of a prosperous family of five members, four of whom are cross-eyed, but none of them will now submit to treatment, because one was operated upon unsuccessfully. All of you perhaps know of many similar experiences.

Now another point; we are frequently told that such and such persons were very crosseyed when children, but eventually out-grew it, that the eyes became straight without any treatment. I have had the opportunity of examining some of these cases, and not unusually the eyes were still crossed, and possibly one eye hopelessly amblyopic, or there was good reason for doubting the diagnosis of out-grown squint. It may be possible for recently developed squint to disappear spontaneously, but we should in no case defer treatment in the hope of an unassisted cure. I should like to ask if any member of this society has seen a true case of strabismus disappear spontaneously and permanently?

When a case of cross eyes has received complete non-surgical treatment and remains uncured, then should the operative procedures be commenced.

The surgical treatment of strabismus can only be referred to here briefly and in general terms, as the choice of operative procedures and the technique of ocular muscle operating are of interest to the ophthalmic surgeon only.

The patient or responsible person in the case should be instructed in the beginning of the sur-

gical treatment, that not one or any certain number of operations is to effect a cure; it may take one, two, three, four or more operations to give permanent good results.

Tenotomy as compared with any form of the shortening operation is much simpler for the surgeon and less trying to the patient, but very many of the indifferent and unfortunate results in the treatment of squint have been due to the attempted correction by tenotomies alone. The advancement operation requires careful technique, but the occulist who does it the most skilfully will surely show the best results in the treatment of cross eyes.

It goes without saying that every case of squint has its individual indications for the kind of surgical treatment required, and the operator must proceed accordingly.

The general condition of the patient must receive due attention, and in some cases this is a very important matter; but it will not do to ignore the eye condition in the expectation that the squint will disappear with the improvement of the general health.

It is also necessary to instruct the patient how he may use his eyes while under observation.

A brief synopsis of a few cases of strabismus as taken from my record book, will be given to illustrate some phases of the treatment required to secure good results.

Case 1: Male, age four years. For a month parents have noticed that right eye has turned in, it is sometimes more crossed than at others, they say. Six days after beginning the use of atropine the eyes became straight and have remained so since. By skiascopy it was found necessary to prescribe glasses to correct his refractive error of compound hypermetropic astigmatism. Owing to the prejudice and influence of his grandparents the patient has gone a great deal without his glasses but his eyes were normal in appearance at last report. This case illustrates how the use of atropine to suspend accommodation may alone be sufficient to overcome an early squint.

Case 2: Male, age eighteen months. Five months ago it was noticed that first one eye and then the other was crossed following an illness. After using atropin skiascopy showed hypermetropia, but no astigmatism, he was given ..4. sphericals to wear constantly, which he kept on with evident satisfaction to himself, and after four months no squint could be detected; however, if he left off his glasses the squint returned. It was noted in this case that his mother and aunt and a cousin were also crosseyed. This case demonstrates that even a baby can and will wear glasses quite as well as any grown person. This child was only eighteen months of age but would not allow his glasses taken away from him without a protest.

Case 3: Female, age seven years. Mother had noticed that left eye turned in "always" and that the child used the right eye exclusively. The Co-Hypermetropic Astigmatism was found to be greater in the left than the right eye, the vision of the right was perfect, in the left the sight was somewhat defective. Glasses worn for a year had no appreciable effect on the converging left eye. Under chloroform the tendon of the internal rectus was divided freely and a control suture used. The correction of the deformity has remained perfect for some years.

Case 4: Male, aged sixteen years. Has been crosseyed as long as he can remember. The right eye more often converges than the left, has worn glasses for several years without effect on the squint. He sees double when he looks closely but the false image is very hazy. It is noticed that the eye turns decidedly up as well as in. Tenotomy of internal rectus and also superior rectus of right eye brought eyes on horizontal but there remains some convergence under cover. Then tenotomy of internal rectus of left eye with control suture brought eyes into perfect position as shown by the phorometer. Only tenotomies were done in this case because the hemorrhage was so very profuse always after the first cut of the scissors.

Case 5: Female, age fifteen years. Patient says that left eye turned in when she was one year old; when six years of age a tenotomy of internal rectus of left eye was done by a well-known specialist and from that time, she says, the eye has turned outward very markedly and to her great humiliation. The vision of the offending eye was almost *nil* when I first saw the patient, she says the sight has gradually grown worse from time to time. Tenotomy of external rectus and advancement of internal rectus of left eye gave a perfect cosmetic result, which has remained so for over two years under the strain of college work.

Case 6: Female, age thirty-eight years. Left eye has diverged many years, she says, but she seeks treatment only because of severe pains in eyes, particularly after near use. She was given prisms 3° each base in by an optician, not benefited by them, of course. Vision of right eye perfect, of left slightly below normal. After weeks of persistent efforts with stereoscope and amblyscope, etc. binocular vision was perfectly developed, but relief from her symptoms and parallelism of the eyes were attained only after four operations on the muscles of both eyes. This case illustrates what may be accomplished after patients have reached mature years.

Case 7: Female, age thirteen years. When patient was a year old she got a bad fall, since which time her eyes have been frightfully crossed, her mother says, and when she gets excited the pupil of one eye, usually the right, almost disappears from the extreme convergence. The vision of both eyes was perfect and no error of refraction. The rotation of the eyes were normal in all directions except inward, which was excessive. Tenotomy of both internal recti had but little effect; in addition advancement and shortening of both external recti did not fully correct the convengence. Later a very free tenotomy of internal rectus of right eye was repeated, using a control suture. The correction was perfect and has remained so for three years, patient attending school constantly and wears no glasses. Her eyes are perfectly normal in every way. It is to be noted here that had the patient stopped short of the fifth operation her cross eyes would not have been cured.

Suppression of Sensational News—It would no doubt be very much to the public benefit if details of such crimes or misfortunes (suicides, etc.) often drawn out to wholly unnecessary length in our daily papers, could be completely suppressed. How far this is compatible with our ideas of freedom of the press and liberty of public expression is open to doubt, but there can be no question that a very great incentive to the unfortunate occurrences which form so conspicuous a part of certain of our daily papers would be removed could a general suppression of all such news be enforced.—*Boston Medical and Surgical Journal.*

PRINCIPLES OF MEDICAL ETHICS OF AMERICAN MEDICAL ASSOCIATION.

The American Medical Association promulgates, as a suggestive and advisory document, the following:

Chapter I.—The Duties of Physicians to Their Patients.

Section 1.—Physicians should not only be ever ready to obey the calls of the sick and injured, but should be mindful of the high character of their mission and of the responsibilities they must incur in the discharge of momentous duties. In their ministrations they should never forget that the comfort, the health, and the lives of those entrusted to their care depend on skill, attention and fidelity. In deportment they should unite tenderness, cheerfulness, and firmness, and thus inspire all sufferers with gratitude, respect and confidence. These observances are the more sacred because, generally, the only tribunal to adjudge penalties for unkindness, carelessness or neglect is their own conscience.

Sec. 2.—Every patient committed to the charge of a physician should be treated with attention and humanity, and reasonable indulgence should be granted to the caprices of the sick. Secrecy and delicacy should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted in their professional visits should be guarded with the most scrupulous fidelity and honor.

Sec. 3.—The obligation of secrecy extends beyond the period of professional services; none of the privacies of individual or domestic life, no infirmity of disposition or flaw of character observed during medical attendance should ever be divulged by physicians, except when imperatively required by the laws of the State. The force of the obligation of secrecy is so great that physicians have been protected in its observance by courts of justice.

Sec. 4.—Frequent visits to the sick are often requisite, since they enable the physician to arrive at a more perfect knowledge of the disease and to meet promptly every change which may occur. Unnecessary visits are to be avoided, as they give undue anxiety to the patient; but to secure the patient against irritating suspense and disappointment the regular and periodical visits of the physician should be made as nearly as possible at the hour when they may be reasonably expected by the patient.

Sec. 5.—Ordinarily, the physician should not be forward to make gloomy prognostications, but should not fail on proper occasions to give timely notice of dangerous manifestations to the friends of the patient, and even to the patient if absolutely necessary. This notice, however, is at times so peculiarly alarming when given by the physician that its deliverace may often be preferably assigned to another person of good judgment.

Sec. 6.—The physician should be a minister of hope and comfort to the sick, since life may be lengthened or shortened, not only by the acts, but by the words or manner of the physician, whose solemn duty is to avoid all utterances and actions having a tendency to discourage and depress the patient.

Sec. 7.—The medical attendant ought not to abandon a patient because deemed incurable, for continued attention may be highly useful to the sufferer and comforting to the relatives, even in the last period of the fatal malady by alleviating pain and by soothing mental anguish.

Sec. 8.—The opportunity which a physician has of promoting and strengthening the good resolutions of patients suffering under the consequences of evil conduct ought never to be neglected. Good counsels, or even remonstrances, will give satisfaction, not offense, if they be tactfully proffered and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.

Chapter II.—The Duties of Physicians to Each Other and to the Profession at Large.

ARTICLE 1.—DUTIES FOR THE SUPPORT OF PROFESSIONAL CHARACTER.

Section 1.—Every one on entering the profession, and thereby becoming entitled to full professional fellowship, incurs an obligation to uphold its dignity and honor, to exalt its standing and to extend the bounds of its usefulness. It is inconsistent with the principles of medical science, and it is incompatible with honorable standing in the profession for physicians to designate their practice as based upon an exclusive dogma or a sectarian system of medicine.

Sec. 2.—The physician should observe strictly such laws as are instituted for the government of the members of the profession; should honor the fraternity as a body; should endeavor to promote the science and art of medicine and should entertain a due respect for those seniors who by their labors have contributed to its advancement.

Sec. 3.—Every physician should identify himself with the organized body of his profession as represented in the community in which he resides. The organization of local or county medical societies where they do not exist should be effected so far as practicable. Such county societies, constituting as they do, the chief element of strength in the organization of the profession, should have the active support of their members, and should be made instruments for the cultivation of fellowship, for the exchange of professional experience, for the advancement of medical knowledge, for the maintenance of ethical standards, and for the promotion in general of the interests of the profession and the welfare of the public.

Sec. 4.—All county medical societies thus organized ought to place themselves in affiliation with their respective State associations, and these in turn with the American Medical Association.

Sec. 5.—There is no profession from the members of which greater purity of character and a higher standard of moral excellence are required than the medical; and to attain such eminence is a duty every physician owes alike to the profession and to patients. It is due to the patients, as without it their respect and confidence cannot be commanded; and to the profession because no scientific attainments can compensate for the want of correct moral principles.

Sec. 6.—It is incumbent on physicians to be temperate in all things, for the practice of medicine requires the unremitting exercise of a clear and vigorous understanding; and in emergencies—for which no physician should be unprepared—a steady hand, an acute eye, and an unclouded mind are essential to the welfare, and even to the life, of a human being.

Sec. 7.—It is incompatible with honorable standing in the profession to resort to public advertisements or private cards inviting the attention of persons affected with particular diseases; to promise radical cures; to publish cases or operations in the daily prints, or to suffer such publications to be made; to invite laymen (other than relatives who may desire to be at hand) to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to employ any of the other methods of charlatans.

SEC. 8.—It is equally derogatory to professional character for physicians to hold patents for any surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances; to assist unqualified persons to evade legal restrictions governing the practice of medicine; to dispense or promote the use of secret medicines, for if such nostrums are of real efficacy any concealment regarding them is inconsistent with beneficence and professional liberality, and if mystery alone give them public notoriety, such craft implies either disgraceful ignorance or fraudulent avarice. It is highly reprehensible for physicians to give certificates attesting efficacy of secret medicines, or other substances used therapeutically.

ARTICLE II.—PROFESSIONAL SERVICES OF PHYSICIANS TO EACH OTHER.

SECTION 1.—Physicians should not, as a general rule, undertake the treatment of themselves, nor of members of their family. In such circumstances they are peculiarly dependent on each other; therefore, kind offices and professional aid should always be cheerfully and gratuitously afforded. These visits ought not, however, to be obtrusively made, as they may give rise to embarassment or interfere with that free choice on which such confidence depends.

SEC. 2.—All practising physicians and their immediate family dependents are entitled to the gratuitous services of any one or more of the physicians residing near them.

SEC. 3.—When a physician is summoned, from a distance, to the bedside of a colleague in easy financial circumstances, a compensation proportionate to traveling expenses and to the pecuniary loss entailed by absence from the accustomed field of professional labor should be made by the patient or relatives.

SEC. 4.—When more than one physician is attending another, one of the number should take charge of the case, otherwise the concert of thought and action so essential to wise treatment cannot be assured.

SEC. 5.—The affairs of life, the pursuit of health and the various accidents and contingencies to which a physician is peculiarly exposed sometimes require the temporary withdrawal of this physician from daily professional labor and the appointment of a colleague to act for a specified time. The colleague's compliance is an act of courtesy which should always be performed with the utmost consideration for the interest and character of the family physician.

(*Continued on page 277.*)

APPENDICITIS; WITH TABULATED REPORT OF SEVENTY-ONE CONSECUTIVE OPERATIONS.*

By W. W. BECKETT, M. D., Los Angeles.

WHILE there has been a great deal written upon this subject during the last two or three years, but little new has been brought out. Deaver, in a recent article, tells us that the appendix is probably the most vulnerable of the abdominal organs. It is in process of retrograde metamorphosis, it is deficient in blood, nerve and lymphatic supply, it is long, its lumen is small and its neck smaller, hence its drainage is easily interfered with. With the pathological changes which follow the infection of the appendix, we have the formation of pus within the appendix, gangrene of a portion or of the entire body, and as a result, the formation of a circumscribed abscess outside the appendix.

The abscess usually ruptures within three days, through the bowel or through the abdominal wall, or it may, in rare instances, empty into the ureter, bladder or lung. Thrombosis with emboli may form in contiguous vessels. Remote parts may become metastatically infected through these emboli or through infected lymphatics.

The abscess usually ruptures within three days although it may remain circumscribed for months and then rupture or it may lose its virulence and become inactive.

J. B. Murphy sums up the results of a case of appendicitis as follows:

(a) Complete restoration of the normal conditions. (b) Cicatrization with stenosis. (c) Occlusion of any portion or of all the appendical cavity. (d) Flexion or torsion of the appendix. (e) Exclusion of any portion of the appendical cavity with or without fecal concretions. (f) Adhesions. (g) Permanent appendical fistulæ, external or internal. (h) Circumscribed appendical abscess. (i) Retention cysts. (j) Complete disappearance of the appendix, the result of gangrene.

The most common results are flexion, torsion or stenosis of the appendix with adhesions. These conditions contribute largely to the recurrence of the attacks and to continued symptoms after the subsidence of the acute manifestations.

He (Murphy) thinks that at least 80% of acute appendicitis cases recur. The diagnosis is of the greatest importance. When physicians learn to recognize the condition early and realize that it is essentially a surgical disease, many lives will be saved.

In all cases of appendicitis, pain, tenderness and rigidity are the most significant symptoms and have well been termed, cardinal.

The course of the disease may vary greatly, but the initial symptoms usually occur in such regular order and are so uniform, that the diagnosis is, as a rule, very easily made during the first twenty-four hours.

The onset is usually sudden, with severe abdominal pain, diffuse at first, circumscribed later; nausea is always present and frequently there is vomiting. Following these symptoms there is an elevation of temperature with an increase in the pulse rate, which may or may not correspond with the temperature curve.

A chill sometimes occurs at the onset. It may occur if perforation takes place, or later in a case of sepsis.

A fall of the temperature with a weaker and quicker pulse and a distention of the abdomen, is characteristic of a diffuse septic peritonitis, and if preceded by a severe paroxysm of pain, indi-

*Read at the Thirty-third Annual Meeting of the State Society Santa Barbara, April 21-23, 1903.

cates rupture of the appendix. It should not be difficult to differentiate appendicitis from appendical, renal or hepatic colic, intestinal obstruction, suppuration of Fallopian tube, pelvic peritonitis associated with gonorrhea in women, or the twisting of the pedicle of an ovarian cyst.

Typhoid fever is sometimes ushered in with marked right iliac symptoms, but with a carefully elicited previous history the diagnosis should be made without difficulty.

The white blood count, as a means of diagnosis, is unreliable.

During the first forty-eight hours, all cases should be operated upon.

Medical treatment is no more effective in appendicitis than it is in osteomyelitis. Cathartics do no good and should not be given until the acute symptoms begin to subside. Opium destroys the danger signals and diminishes secretion. Gastric lavage often produces excessive straining and increases the danger of rupture of a circumscribed abscess. The icebag gives a false sense of security and masks the symptoms.

In no other condition is an early operation more imperative. Practically all fatal cases could have been saved by early surgical treatment.

By an early operation the mortality is less than 2%, there is no danger of hernia, recurrence of the disease or secondary abscess. By the expectant treatment, the mortality is more than 10% of operated cases and more than 2% of all cases attacked. There is danger of hernia as 50% require prolonged drainage. From 50% to 80% of cases not operated upon, and 2% of cases treated by incision and drainage, recur.

The disease is more dangerous than the operation. The skillful surgeon saves more patients by timely operation than could be saved in any other way. All patients should be treated surgically.

Operate on all cases before the fourth day. After the fourth day if all the symptoms are subsiding, and there is reasonable assurance that the patient will recover, postpone surgical interference until the patient has fully recovered.

When possible, operate on all cases after the first attack, even though it be a mild one—the second may prove fatal.

In the appended report of seventy-one consecutive cases, there were six fatalities. These, with the previously published fifty consecutive cases without a death, make a mortality of a little less than 5%.

The first fatal case *(Case 52)*, was that of a physician. I saw him first on the 14th day after the onset. He was profoundly septic and somewhat jaundiced. Behind the ascending colon there was an extensive slough reaching up to and perforating the diaphragm.

I drained this patient through the anterior incision and through the loin. He died three weeks later of septic pneumonia.

Case 61, was a little girl of five years. The operation was on the sixth day after the attack. The appendix was perforated, gangrenous and was not adherent. There was general septic peritonitis. The cavity was freely drained. The patient died three days later of septic peritonitis.

Case 65, was a girl of eleven years. The operation was on the seventh day after the attack. After the second day of the attack the patient improved and the physician in charge of the case thought she was convalescent, but on the seventh day she grew worse, was extremely restless, did not sleep much the night before. Her temperature ran up to 103° F., with a pulse of 140.

The appendix was gangrenous and perforated and there was a quantity of pus in the cavity. Free drainage was established and the abdominal inflammation seemed to rapidly improve but the nervous symptoms grew worse and meningitis developed from which the patient died five days later. I have seen two other fatal cases of meningitis following appendicitis.

Case 82, was of the fulminating variety. The appendix was gangrenous and perforated and there was general peritonitis. The operation was on the third day. Free drainage was established but the patient did badly and died five days after the operation.

Case 99, was one of those cases that has rather a sharp onset followed in a day or two by subsidence of all the symptoms and then suddenly there is a lighting up of the severe symptoms and the disease runs a rapid course to a fatal ending. After the second day of the attack, the symptoms grew better and the patient seemed much improved, the bowels moved, pulse and temperature lowered, the pain subsided and there was every reason to believe that he would rapidly recover, but on the sixth day he grew rapidly worse, there was great pain and tenderness which extended rapidly over the entire abdomen. The temperature rose to 103° F. and the pulse to 130. The abdomen was retracted. I saw him for the first time the following day and operated at once. The appendix was found to be adherent, gangrenous and perforated. The peritoneum was greatly congested and denuded of its endothelium. This is always indicative of severe strepococcus infection. These cases invariably prove fatal.

Case 102, died of a thrombosis.

Of the series of 121 consecutive cases, the following is a brief summary:

The youngest was four and one-half years old. The oldest was sixty-three years old. Ninety-six were operated on during the attack, of which there were six fatalities. Twenty-five were operated on between attacks of which there were no fatalities. One recurred after opening and draining a walled-off-abscess. In one case, there was a fistula opening into the ureter which persisted for some time. Fifty-six were suppurative cases requiring drainage.

TABULATED REPORT.

No.	Name.	Sex.	Age.	Temperature.	Pulse.	Number of previous attacks.	Nausea and Vomiting.	Pain and tenderness.	Boardiness.	Mass.	Ulcerative appendicitis.	Appendix gangrenous.	Appendix perforated.	Appendix adherent.	Appendix non-adherent.	Enterolith.	Operation, days after onset.	Recurrence after drainage.	Circumscribed abcess cavity, not opened.	Pus free in cavity.	Septic peritonitis, genera or local.	Operation during attack.	Operation between attacks.	Fecal fistula.	Death, days after operation.	Suppuration drained.	Appendix removed.	Septic peritonitis, no limiting adhesions.	
51	S. G.	M	13	102	115	1	1	1	1	..	..	1	1	..	..	..	13	..	..	1	..	1	..	..	.....	1	1	..	
52	D. D.	M	54	104	140	1	1	1	1	1	..	1	1	1	..	1	14	..	1	..	..	1	..	..	3 wks	1	1	..	Septic Pneumonia
53	D. R.	M	8	102	100	1	1	1	1	..	..	1	1	1	..	..	3	..	..	1	..	1	..	..	.....	1	1	..	
54	H. G.	M	34	103	110	1	1	1	1	1	..	1	1	1	..	1	2	..	..	1	..	1	..	..	.....	1	1	..	
55	H. M. G.	M	6	103	120	1	1	1	1	..	..	..	..	..	1	..	1	..	..	1	..	1	..	..	.....	..	1	1	
56	B. D. C.	M	40	105	124	2	1	1	1	..	1	..	..	1	..	..	2	..	..	..	..	1	..	..	.....	..	1	1	
57	G. O.	M	23	98.6	72	2	..	..	..	..	..	..	..	1	..	..	21	..	..	..	..	..	1	..	.....	..	1	..	
58	W. E. S.	M	62	102	112	0	1	1	1	1	..	..	..	1	..	..	6	..	1	..	..	1	..	..	.....	1	..	..	
59	M. B.	F	25	101	89	1	..	1	1	..	..	..	..	1	..	..	2	..	..	..	..	1	..	..	.....	..	1	..	
60	F. L. H.	F	24	98.6	80	3	..	..	..	..	..	..	..	1	..	..	22	..	..	..	..	..	1	..	.....	..	1	..	
61	F. P.	F	5	103	140	0	1	1	1	..	..	1	1	..	1	..	6	..	..	1	1	1	..	..	3	1	1	1	Peritonitis
62	J. W. C.	M	40	101	120	5	1	1	1	1	..	1	1	1	..	..	2	..	..	1	1	1	..	..	.....	1	1	..	
63	M. M.	F	19	102	115	0	1	1	..	1	1	1	1	1	..	..	3	..	..	1	1	1	..	..	.....	..	1	1	
64	M. A.	F	19	100	120	0	1	1	1	..	1	..	..	..	1	..	6	..	..	..	..	1	..	..	.....	..	1	..	
65	E. H.	F	11	101	130	0	1	1	1	1	1	1	1	1	..	..	7	..	..	1	1	1	..	..	5	1	1	..	Meningitis
66	F. N.	F	22	102	140	3	1	1	1	..	1	..	..	..	1	..	21	..	..	..	1	1	..	..	.....	..	1	..	
67	F. C.	M	14	101	100	0	1	1	1	1	1	1	1	1	..	..	8	..	1	..	..	1	..	..	.....	1	..	..	
68	G. G.	F	5½	102	120	0	1	1	1	1	1	1	1	1	..	..	8	..	..	1	1	1	..	..	.....	1	..	..	
69	C. F.	M	30	98.6	74	0	..	..	..	..	..	..	..	..	..	..	.....	..	..	..	..	..	1	..	.....	..	..	..	
70	P. L. B.	M	22	103½	130	0	1	1	1	1	1	1	1	1	..	..	2	..	..	1	1	1	..	..	.....	1	1	1	
71	J. D.	F	18	98.6	70	1	..	..	..	..	..	..	..	..	..	..	.....	..	..	..	..	1	..	..	.....	..	1	..	
72	E. L. R.	M	41	102	120	0	1	1	1	..	..	1	1	1	..	..	4	..	..	..	1	1	..	..	.....	1	..	..	
73	M. B.	F	44	101	126	0	1	1	1	..	1	..	..	..	1	..	2	..	..	..	..	1	..	..	.....	..	1	..	
74	M. P.	F	14	101	130	0	1	1	1	1	1	1	1	..	..	..	10	..	..	1	1	1	..	..	.....	1	..	..	
75	A. W.	F	14	104	140	0	1	1	1	1	1	1	1	..	..	1	14	..	..	1	1	1	..	..	.....	1	1	1	
76	M. H.	F	30	101	105	0	1	1	1	1	..	..	..	1	..	..	7	..	1	..	1	1	..	..	.....	1	..	..	
77	C. G.	M	36	104	120	1	1	1	1	..	1	1	1	1	..	1	3	..	..	1	1	1	..	..	.....	1	1	1	
78	R. V. L.	F	7	100	110	0	1	1	1	..	..	..	..	1	..	..	4	..	..	..	..	1	..	..	.....	..	1	1	
79	L. P. B.	M	28	100	109	1	1	1	1	..	1	..	..	1	..	1	2	..	..	..	1	1	..	..	.....	..	1	..	
80	F. B.	M	7	102	140	1	1	1	1	1	1	1	1	..	1	1	4	..	..	..	..	1	..	..	.....	1	1	1	
81	A. C. W.	M	54	98.6	68	2	..	..	..	..	1	1	1	1	..	1	84	..	1	..	..	..	1	.	.....	1	1	..	
82	T. J. A.	M	22	103	130	1	1	1	1	..	1	1	1	1	..	1	3	..	..	..	1	1	..	..	5	..	1	1	Peritonitis
83	C. C. W.	M	32	99	90	3	..	1	..	..	..	..	..	1	..	..	5	..	..	..	..	1	..	..	.....	..	1	..	
84	G. I. W.	M	51	102.6	110	0	1	1	1	..	..	1	..	..	1	1	1	..	..	..	..	1	..	..	.....	..	1	1	
85	M. W.	F	54	103	116	0	1	1	1	..	1	1	..	1	..	1	4	..	..	..	1	1	..	..	.....	1	1	..	
86	S. W. E.	M	63	100	64	1	..	1	..	1	1	..	..	1	..	..	10	1	..	..	..	1	..	..	.....	..	1	..	
87	A. B. C.	M	30	103	110	0	1	1	1	..	..	1	1	1	..	1	3	..	..	..	1	1	..	..	.....	1	1	..	
88	W. B. B.	F	31	103½	130	0	1	1	1	..	..	..	..	..	1	1	3	..	..	1	1	1	..	..	.....	..	1	1	
89	C. V. K.	F	28	98.6	73	1	..	..	..	..	..	..	..	..	..	..	.....	..	..	..	..	..	1	..	.....	..	1	..	
90	J. H. H.	F	51	98.6	90	0	..	..	..	..	..	..	..	1	..	1	.....	..	..	..	..	..	1	..	.....	..	1	..	
91	P. S.	F	19	104.2	146	3	1	1	1	1	..	..	..	1	..	..	3	..	..	1	1	1	..	..	.....	1	1	1	
92	W. M.	F	29	103	100	0	1	1	1	1	..	..	..	..	..	..	.....	..	..	..	..	1	..	..	.....	..	1	..	
93	L. N.	M	15	102	120	2	1	1	1	..	..	..	..	..	..	..	.....	..	..	..	..	1	..	..	.....	..	1	..	
94	M. K.	F	21	101	118	0	..	1	1	..	..	..	..	..	..	..	.....	..	..	..	..	1	..	..	.....	..	1	..	
95	R. A.	M	7	103	102	0	1	1	1	..	1	1	1	1	..	1	4	..	..	..	1	1	..	..	.....	1	1	..	
96	E. D.	F	33	103	160	1	1	1	1	1	..	1	1	1	..	1	4	1	..	1	1	1	..	..	.....	1	1	..	
97	O. V. C.	F	35	98.6	77	5	..	..	..	..	..	..	..	1	..	..	.....	..	..	..	..	..	1	..	.....	..	1	..	
98	N. B.	F	23	103.2	140	1	1	1	1	1	1	1	1	..	1	1	30h	..	..	..	1	1	..	.	.....	..	1	1	
99	W. R.	M	23	103	90	1	1	1	1	1	1	1	1	..	1	..	7½	..	..	..	1	1	..	..	1¼	1	1	..	
100	W. G.	F	46	101	120	1	1	1	1	1	1	1	1	..	1	..	8	..	..	..	1	1	..	..	.....	1	1	..	
101	M. L. W.	F	48	103	120	1	1	1	1	..	1	1	1	..	1	..	26h	..	..	..	1	1	..	..	.....	1	1	1	
102	N. B.	F	26	99	95	3	..	1	..	..	..	..	..	1	..	..	4	..	..	..	..	1	..	..	36h	..	1	.	Thrombosis
103	B. S.	M	52	100	76	0	1	1	1	1	1	1	1	..	1	..	9	..	..	..	1	1	..	..	.....	1	1	..	
104	C. F.	F	19	101	140	3	1	1	1	..	1	..	..	..	1	..	1	..	..	..	1	1	..	..	.....	..	1	..	
105	R. D. P.	F	34	99	76	0	..	..	..	..	..	..	..	..	1	..	.....	..	..	..	..	..	1	..	.....	..	1	..	
106	W. B.	M	8	100	90	0	1	1	1	1	1	1	1	..	..	1	2	..	..	..	1	1	..	..	.....	..	1	1	
107	H. M.	F	18	102	110	1	..	1	1	..	1	..	..	1	..	1	4	..	..	..	..	1	..	..	.....	..	1	..	
108	J. T.	M	49	101	94	1	1	1	1	..	1	1	1	1	..	1	2	..	..	..	1	1	..	..	.....	..	1	1	
109	S. B. S.	F	32	98.6	76	1	..	..	..	..	..	..	..	..	1	..	.....	..	..	..	..	..	1	..	.....	..	1	..	
110	M. E.	F	19	101.5	155	1	1	1	1	..	1	1	1	1	..	1	4	..	..	..	..	1	..	..	.....	1	1	1	
111	C. F. D.	F	35	99	75	3	..	..	..	..	..	..	..	1	..	1	21	..	..	..	..	..	1	..	.....	..	1	..	
112	L. M.	F	38	98.6	80	1	..	..	..	..	..	..	..	..	1	..	.....	..	..	..	..	..	1	..	.....	..	1	..	
113	C. B. B.	F	41	98.6	76	1	..	..	..	..	..	..	..	..	1	..	.....	..	..	..	..	..	1	..	.....	..	1	..	
114	E. M.	M	27	100	112	3	1	1	1	..	..	..	..	1	..	1	.....	..	..	..	1	1	..	..	.....	..	1	..	
115	E. J. W.	F	42	101	120	1	1	1	1	..	..	..	..	1	..	..	1	..	..	..	1	1	..	..	.....	..	1	..	
116	F. L. W.	F	53	98.6	74	0	..	..	..	..	..	..	..	..	1	..	.....	..	..	..	..	..	1	..	.....	..	1	..	
117	J. W.	M	51	98.6	72	1	..	..	..	..	..	..	..	..	1	..	.....	..	..	..	..	..	1	..	.....	..	1	..	
118	S. B.	M	49	101	99	0	..	1	1	..	..	..	..	..	..	..	.....	..	..	..	..	1	..	..	.....	..	1	..	
119	N. D.	M	46	102	100	1	1	1	1	..	..	1	..	1	..	1	.....	..	..	..	1	1	..	..	.....	..	1	..	
120	O. W. R.	M	38	100	84	5	..	1	1	..	..	..	..	1	..	..	14	..	..	..	..	1	..	..	.....	..	1	..	
121	C. J.	F	43	99	86	0	1	1	1	.	..	..	..	1	..	..	12h	..	..	..	..	1	..	..	.....	..	1	..	

REPORTS OF MEDICAL SOCIETY MEETINGS.

NAPA COUNTY.

The second meeting of the Napa County Medical Society was held on the evening of July 15th. The following named are the officers of the society: Dr. E. E. Stone, Napa, President; Dr. W. H. Leach, Napa, Vice-President; Dr. J. L. Arbogast, St. Helena, Secretary; Dr. W. W. Rumsey, Yountville, Treasurer. The society is to hold meetings quarterly, the next one, however, to be held on the first Tuesday of September.

SACRAMENTO COUNTY.

The Sacramento Society for Medical Improvement met on the evening of July 21st, at the office of Dr. Henderson, on K street. The subject under discussion was "The Importance of Arterial Tension as a Symptom." Dr. Wallace I. Terry of San Francisco, and Dr. S. E. Simmons opened the discussion.

JOSEPH W. JAMES, Secy.

SAN DIEGO COUNTY.

At the regular meeting of the San Diego County Medical Society for the month of July, Dr. Wm. A. Edwards of Coronado presented a number of pathological specimens, giving histories of the cases and results of operations.

Dr. F. R. Burnham is absent from the city rusticating with the Sierra Club around the summit of Mt. Whitney.

Dr. P. J. Parker and family are sojourning for the month at the Tented City, Coronado Beach.

Dr. Charlotte Baker, who went East the first of July with a patient, is now visiting with relatives in Milton, Mass., and while in the East will take a special course in X-Ray work, and skin diseases in Boston.

Dr. W. N. Wade of Jamul is at the Agnew Sanitarium with a very seriously injured lady of his neighborhood.

Drs. Remondino and Franklin are also in attendance at the Agnew with a serious gun-shot wound in a small boy.

THOS. L. MAGEE, Secy.

SAN FRANCISCO COUNTY.

At the regular meeting, July 14th, Dr. Kengla in the chair, the membership committee reported favorably on the following named, and they were declared elected: Drs. C. G. Wilson, F. W. Simpson, Herbert Gunn, James D. Hill, R. M. Higgins, W. F. B. Wakefield, Donald R. Smith, August Fehlen, Col. V. D. Middleton, Wm. E. Hopkins, E. Zeile, Sylvia F. Harris, R. L. Porter, R. A. Buchanan, George J. Sweeney, Emanuel L. Fernandez, J. W. Smith, W. C. Chilson, Horace Laidlaw, W. I. Sunburnt, Ferdinand P. Canæ-Marquis, R. K. Smith.

An amendment to the constitution was proposed, eliminating the prerequisite of residence in San Francisco county for membership in the society, and providing that physicians residing in adjoining counties, in which there is no medical society affiliated with the State Society, shall be eligible for membership.

The program of papers and cases presented was as follows: "Treatment of Cirrhosis of the Liver," by Dr. Minora E. Kibbe; "Exhibition of Cases of Repair of Deformity by Paraffine Injection," by Dr. A. W. Morton; "Reports on Two of the Lorenz Cases," and "An Unusual Infective Organism Producing Acute Suppurative Appendicitis," by Dr. Harry M. Sherman (See page 254). Discussion on Dr. Sherman's papers by Drs. Stapler, Kenyon, Tait, Ebright and Halton.

Dr. Morton exhibited patients on whom he had operated with injected paraffine: (1) Deformity following the removal of the superior maxillary bone; (2)necrosis of right tibia; (3) saddle-back nose; (4) testicle restored to normal size. Dr. Morton exhibited specimen of prepared paraffine and a Lure's syringe which he uses in the operations. Discussion by Drs. Caglieri, Sherman, Stapler and Rosenstirn.

Dr. Kibbe presented patient, following the reading of her paper on cirrhosis of the liver and operation. Discussion by Drs. Wright, Tait and Stapler.

SAN LUIS OBISPO COUNTY.

The physicians of this county have organized the San Luis Obispo County Medical Association with the following named officers and members: Dr. J. S. Jackson, President; Dr. E. A. Dial, Secretary; Dr. J. J. Knowlton, Treasurer, and Drs. B. F. Dawson, Cayucos; H. S. Walters, Cambria; J. H. Glass and J. K. McLennan, Paso Robles; S. Helgensen, Templeton; E. L. Paulding and J. Crawford, Arroyo Grande; R. W. Brown, Nipomo. The society is to meet monthly.

E. A. DIAL, Secretary.

SANTA CLARA COUNTY.

San Jose, July 15.—At the stated meeting held this date, after the election of five new members and transaction of much routine business, the attention of the society was called to the matter of the quo-warranto proceedings and the suit commenced in the Superior Court of San Francisco by Dr. D. A. Hodghead, Dean of the College of Physicians and Surgeons of San Francisco, at the instigation of his associates, the trustees of that college, to remove the present State Board of Medical Examiners. In view of the statements made concerning the matter, and the question of the present reputability of the college named, a committee was appointed to inquire into the circumstances leading to such suit, together with the animus of the party or parties bringing such action, with instructions to report their findings for the consideration of this society at an adjourned meeting to be held for that purpose.

The society was entertained by an informal discourse by Dr. A. E. Osborne on certain psychic phenomena of so-called "mysterious disappearances," stating that the movements and whereabouts of a person suffering from the mental aberration involved in these phenomena, were more difficult to trace than those of suicides, or who had met death by accident or violence; in fact that a dead body, under such circumstances, was easier to find than a live one, and cited several instances in confirmation. Dr. Osborne's remarks were prompted by the mysterious disappearance of our fellow-townsman, Mr. Samuel W. Boring, who, although 80 years of age, and with whom he had been intimately acquainted, the doctor had never discovered any sign of approaching dementia.

J. LAMBERT ASAY, Secy.

SAN FRANCISCO SOCIETY OF EYE, EAR, NOSE AND THROAT SURGEONS.

The regular monthly meeting of the San Francisco Society of Eye, Ear, Nose, and Throat Surgeons was held on March 19th, 1903. The President, Dr. Louis C. Deane in the chair.

Dr. Payne exhibited a remarkable case of vitreous opacities.

The patient was a railroad fireman, who last December was struck in the left eye by a piece of coal or a spark. There was a slight redness of the eye which soon disappeared, but two months later the eye became bad again and he was sent to this city for treatment. At the time of being first seen his vision was 20-80, and there were a great number of opacities in the vitreous. Under sweating with pilocarpine and inunction treatment, the central vision was raised to 20-20, and the disc was not so hazy. But there is still an extremely large opacity occupying the inferior exterior quadrant of the vitreous, looking like a sheet of black carbon paper, and seemingly attached by its lower border. Besides there are a number of smaller floating opacities.

Dr. Powers discussing the case thought it was probably a shred of retina. It did not seem like a blood clot to him, and the possibility of its being specific was quite near.

Dr. Deane thought it an exudate and that it could not be a retinal detachment, as the edges of the opacity were frayed out extending quite a distance into the vitreous.

Dr. Powers presented the same patient he presented at the last meeting with the diagnosis of embolism of the central retinal artery. All the fundus appearances point to the case being one of neuroretinitis. There is a marked atrophy of the disc, and a white streak is seen running down from the disc which is probably not a vessel, as it was at first broader and whiter than it is now.

Dr. Payne also thought it a receding neuroretinitis.

Dr. Deane was of the opinion that the white streak referred to by Dr. Powers was an exudate in the nerve fibre layer, a favorite place for these exudates.

Dr. Powers. (Presenting specimen.) I had occasion to remove a cataract from the eye of a gentleman 79 or 80 years of age, very healthy and active, exceedingly tractable. Did not wince or make any trouble at all during the operation. When making the incision the iris seemed to fall in front of the knife so far that I thought it must be wounded. There was only gentle pressure required to extrude the lens. I held the scoop ready to take it and when the lens was removed the entire iris came with it. The only way to account for it is, in moving away the lens traction was produced upon the iris and brought it away. Nothing in the operation happened to loosen the iris.. I saw something of the same kind happen in the experience of another man in an attempt to make an iridectomy. There was no vitreous lost. A few flakes of blood only. Did not open the eye for five days and at the end of that time the man counted fingers at quite a distance and could distinguish faces very easily.

Dr. Payne: This is an extraordinarily interesting specimen. The iris shows that it was atrophic and was undergoing degeneration. There is very little pigment and the wounded iris is not any too firmly fixed at the limbus border so one can understand how this accident might occur with such an atrophic and degenerative condition.

Wise Counsel—As the time approaches for the annual meeting of the Washington State Medical Association, the query naturally arises as to the success thus far attending the reorganization adopted at the last meeting, in accordance with the plan outlined by the American Medical Association. The results attained will be indicated by the membership gathered into the State Association. Since eligible members are now confined to those in good standing in the county societies, the latter comprise the pivotal points for the larger society. * * * We wish to urge the formation of as many county societies as possible before the meeting of the State Association at Spokane next September. It should be the purpose of every eligible physician in the State to become a member of this representative body. What the American Medical Association represents to the great body of the profession in the whole country we would have our State Association stand for in our rapidly growing State. The future interests and welfare of the medical profession of the State of Washington can best be cared for by the existence of such a body of practitioners, whose influence can be felt and appreciated in whatever direction it may be exerted.—*Northwest Medicine.*

PERSONAL MENTION.

Dr. Ray Lyman Wilbur, assistant professor of physiology and university physician at Stanford, has been granted a year's leave of absence for travel, rest, and study in Europe. Dr. Wilbur is accompanied by Mrs. Wilbur and his two children.

Dr. Joseph Brady and Miss Eugenie Brown were married at St. Dominic's Church, San Francisco, on the evening of June 24th. After the ceremony at the church about 200 guests attended the wedding supper at the Palace Hotel.

Dr. Charles A. Morris and Miss Jessie Galbraith were married at the residence of the bride's mother, on Castro street, San Francisco, on July 1st.

Dr. Lemuel Payson Adams of Oakland and Miss Elizabeth Leigh were married at the residence of Dr. Frank Adams, the bride's brother-in-law, on the evening of July 15th.

Dr. Harry F. Worley of Oakland and Miss Sadie A. Smith were married at the First Methodist Church, Oakland, on the evening of June 30th.

Dr. C. A. Case, formerly of Oakdale, has taken the practice of Dr. Hershiser at Pleasanton, who has gone East.

Dr. J. L. Arbogast, formerly of Rio Vista, is now located at St. Helena.

Dr. A. J. Goetsch, formerly of Yountville, is now located at St. Helena.

Dr. J. H. Carothers of Martinez, after fifty years of practice is about to retire.

Dr. A. B. Powell has moved from Tracy to Dos Palos.

Dr. H. C. Crowder has moved from Sutter Creek to Tracy.

Drs. C. and May A. Mathewson have removed from Calistoga to San Francisco.

Dr. L. C. Winsor, formerly of San Jose, has located at Livermore.

BOOK REVIEWS.

Disease of the Pancreas; Its Cause and Nature.—By Eugene L. Opie, M. D., Associate in Pathology in the Johns Hopkins University; Fellow of the Rockefeller Institute of Medical Research, Philadelphia. J. B. Lippincott Company. Price, $3.00.

Medical book readers are rapidly learning the value of special works upon individual organs by the author whose tastes, training and attainments are a guaranty of good faith and earnestness. This is clearly apparent in the acceptability of journal literature of the higher type, and is manifest in the voluminous references to such sources of information by writers in every language.

The work before us is a conspicuous example of meritorious effort along this line and it may be safely said that Dr. Opie has given to the profession the best monograph upon the pancreas, its structure, its function, its pathology and its relationshp to other organs in health and disease that has ever appeared in English. The work must be read to be fully appreciated and as an aid to diagnosis and to differential diagnosis it will prove invaluable.

The etiology of hemorrhagic pancreatitis is reviewed at length, and the author's deductions are altogether convincing. The same may be said of the chapters devoted to the association of acute pancreatitis with fall bladder and gall disease. The discussion of fat necrosis as related to pancreatic lesions brings forward all that has been determined thus far, either experimentally or clinically.

The author's review of the pathology of diabetes mellitus and its relation to lesions of the islands of Langerhans places before the English student a complete summary of the world's present knowledge upon this subject. The work is liberally illustrated and its value greatly enhanced by a copious and comprehensive bibiography. It is to be hoped that a second edition will place a correct estimate upon the value of very recent investigations relative to the conditions governing the activity of the gland as well as the action of the newly discovered secretin.

THOS. W. HUNTINGTON.

The STATE JOURNAL acknowledges the receipt of a pamphlet on "Technique of Cholecytostomy, and a New Method of Abdominal Suturing," and reprint of paper on "A Few Practical Points in the Tecnic of Nephorrhaphy and Herniotomy; and a New Modification of Alexander's Operation," by F. P. Canae-Marquis, M. D., of the French Hospital staff, San Francisco.

AN UNUSUAL INFECTION CAUSING ACUTE SUPPURATIVE APPENDICITIS.

(*Continued from page 254.*)

anaerobic bacteria. Very recently in the Hunterian lecture upon the pathology of appendicitis not one reference was made to this all-important subject, which the French school has studied most carefully ever since Pasteur, in 1861, first isolated and cultivated the first anaerobic micro-organism. In 1889, while working in the Pasteur Institute at Paris, I saw considerable attention given to this class of bacteria, and during the past five years, excellent results have been obtained, especially in the study of otitis, gangrene of the lung, urinary infections and anglo-cholitis and appendicitis. In a series of 22 cases of appendicitis reported in the *French Archives of Experimental Medicine* in the latter part of 1898, a most careful bacteriologic search showed the presence of anaerobic bacteria in every case but one, this being a mild pneumococcic infection. In many cases the lesions were solely due to the anaerobes. The most practical method of studying anaerobes is with the Liborius tube, as modified by Veillon, which permits of an easy segregation of the aerobic, facultative and obligatory anaerobic bacteria. In conclusion, I would suggest that we resort to the more accurate methods of bacteriologic diagnosis, even if such methods be delicate and require several weeks to investigate a single case.

CORRESPONDENCE.

SCAMP AND CRIMINAL.

Visalia, July 27, 1903.

To the California State Journal of Medicine:—The following is reported for its interest to the profession all over the State, because of its bearing on the State law regarding practice, and also because we are rid of one man who was practicing in violation of the law and seemed to have very little trouble to follow the work.

On Wednesday of last week F. N. Martin, who advertised himself as "The Herb King," was found guilty of rape committed on the person of one of his patients, a feeble-minded girl, who had been under his treatment for epilepsy for several months. The jury was out about twenty minutes, returning with a verdict of guilty as charged. He was sentenced to serve thirty years in the State Prison at Folsom.

He obtained the same class of business that such traveling quacks generally find in any town, but among them were some people of influence and money.

The District Attorney was advised of his violation of the law and had an interview with him, telling him he would be prosecuted if he did not quit his work. He left this place, but soon returned with a Dr. B. F. Weaver, holding certificate No. 4904, and commenced practice, claiming to make drugs which Dr. Weaver would use in his practice, and advertising that he could be found at his old place of business. As soon as he commenced this work he was at once arrested and placed under a $500 bond for practicing medicine without a license.

He was tried twice, the jury failing to agree on a verdict. During both trials an attempt was made by his attorneys to show that he was the subject of jealousy and persecution by the medical profession of this town; but members of the profession here had talked very little, and not one of them put his foot in the court room during the trial.

Between his trials and during the last, he had printed a letter to the public, signed by fifteen of his patients. This letter was printed daily in the papers here, and stated that all had been using his medicine and could not live without it, and they saw no reason why the law should step in and take from them the privilege of buying this medicine. One of the names signed to the letter was that of the

mother of the girl upon whom he committed the rape.

There is one thing about the matter in which the profession here can take considerable satisfaction and that is most of his friends paid dearly for their experience. Three of them signed notes given to his attorneys to fight the cases in which he was charged with illegal practice of medicine, and I have been told that each trial cost him $500; those friends paid the charges.

The fight made by the District Attorney's office of this place was a hard one, and it was on account of the great expense attached to defending himself that we were hopeful of getting rid of Martin, had he not been guilty of far greater charges. From the testimony given in the rape case, it appears that Martin's victim was afflicted with epilepsy, and had been since the age of three. Her mind, which is weakened, was made more so by reason of three hard convulsions she had the evening before the assault.

I am glad to say that none of Martin's adherents had a hand in his defense in the latter charge, and it would be very easy now to have him convicted on the first charge were he to stand trial for practicing medicine without a license. We regret very much that it takes a serious criminal charge to make it possible to secure a jury in a community to convict a quack for practicing without a license, when the case was such a plain violation of the law as his case was.

The daily papers here gave no help in trying to point out why a man should be disqualified under the law to practice medicine, and one paper gave Martin some help because he did some advertising with it.

The same condition confronted those of the profession here who started things moving against Martin that confronts the profession in general, when they agree to comply with higher requirements and ask that they be made in order to secure a license.

We were accused of jealousy and fear of losing business, but I doubt very much if any regular practitioner here has suffered one bit by reason of any quack's methods in the place. We feel that the profession is degraded by quack methods, and feel certain the people at large are the ones protected by the law. We feel no little humiliation that the local papers will not discourage the methods of such people, but instead render them assistance because of a few advertisements, when they know the profession does not permit advertising except in the matter of a card in their professional list.

Very truly yours,
W. W. CROSS.

PRINCIPLES OF MEDICAL ETHICS.

(*Continued from page 270.*)

SEC. 2.—The physician, in his intercourse with a patient, under care of another physician, should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder, nor should the course of conduct of the physician directly or indirectly tend to diminish the trust reposed in the attending physician.

SEC. 3.—The same circumspection should be observed when, from motives of business or friendship, a physician is prompted to visit a person who is under the direction of another physician. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topic of conversation should be as foreign to the case as circumstances will admit.

ARTICLE III.—THE DUTIES OF PHYSICIANS IN REGARD TO CONSULTATIONS.

SECTION 1.—The broadest dictates of humanity should be obeyed by physicians whenever and wherever their services are needed to meet the emergencies of disease or accident.

SEC. 2.—Consultations should be promoted in difficult cases, as they contribute to confidence and more enlarged views of practice.

SEC. 3.—The utmost punctuality should be observed in the visits of physicians when they are to hold consultations, and this is generally practicable, for society has been so considerate as to allow the plea of a professional engagement to take precedence over all others.

SEC. 4.—As professional engagements may sometimes cause delay in attendance the physician who first arrives should wait for a reasonable time, after which the consultation should be considered as postponed to a new appointment.

SEC. 5.—In consultations no insincerity, rivalry, or envy should be indulged; candor, probity and all due respect should be observed toward the physician in charge of the case.

SEC. 6.—No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered which are not the result of previous deliberation and concurrence.

SEC. 7.—No decision should restrain the attending physician from making such subsequent variations in the mode of treatment as any unexpected change in the character of the case may demand. But at the next consultation reasons for the variations should be stated. The same privilege, with its obligation, belongs to the consultant when sent for in an emergency during the absence of the family physician.

SEC. 8.—The attending physician, at any time, may prescribe for the patient; not so the consultant, when alone, except in a case of emergency or when called from a considerable distance. In the first instance the consultant should do what is needed, and in the second should do no more than make an examination of the patient and leave a written opinion, under seal, to be delivered to the attending physician.

SEC. 9.—All discussions in consultation should be held as confidential. Neither by words nor by manner should any of the participants in a consultation assert or intimate that any part of the treatment pursued did not receive his assent.

SEC. 10.—It may happen that two physicians cannot agree in their views of the nature of a case and of the treatment to be pursued. In the event of such a disagreement, a third physician should, if practicable, be called in. None but the rarest and most exceptional circumstances would justify the consultant in taking charge of the case. He should not do so merely upon the solicitation of the patient or friends.

SEC. 11.—A physician who is called in consultation should observe the most honorable and scrupulous regard for the character and standing of the attending physician, whose conduct of the case should be justified so far as can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in the attending physician.

ARTICLE IV.—DUTIES OF PHYSICIANS IN CASES OF INTERFERENCE.

SECTION 1.—Medicine being a liberal profession, those admitted to its ranks should found their expectations of practice especially on the character and the extent of their medical education.

SEC. 4.—A physician ought not to take charge of, or prescribe for, a patient who has recently been under the care of another physician, in the same illness, except in case of a sudden emergency, or in consultation with the physician previously in attendance, or when that physician has relinquished the case or has been dismissed in due form.

SEC. 5.—The physician acting in conformity with the preceding section should not make damaging insinuations regarding the practice previously adopted, and indeed, should justify it if consistent with truth and probity; for it often happens that patients become dissatisfied when they are not immediately relieved, and as many diseases are naturally protracted, the seeming want of success in the first stage of treatment affords no evidence of a lack of professional knowledge or skill.

SEC. 6.—When a physician is called to an urgent case, because the family attendant is not at hand, unless assistance in consultation is desired, the former should resign the care of the patient immediately on the arrival of the family physician.

SEC. 7.—It often happens, in cases of sudden illness, and of accidents and injuries, owing to the alarm and anxiety of friends, that several physicians are simultaneously summoned. Under these circumstances, courtesy should assign the patient to the first who arrives and who, if necessary, may invoke the aid of some of those present. In such a case, however, the acting physician should request that the family physician be called, and should withdraw unless requested to continue in attendance.

SEC. 8.—Whenever a physician is called to the patient of another physician during the enforced absence of that physician, the case should be relinquished on the return of the other.

SEC. 9.—A physician, while visiting a sick person in the country, may be asked to see another physician's patient because of a sudden aggravation of the disease. On such an occasion the immediate needs of the patient should be attended to and the case relinquished on the arrival of the attending physician.

SEC. 10.—When a physician who has been engaged to attend an obstetric case is absent and another is sent for, delivery being accomplished during the vicarious attendance, the acting physician is entitled to the professional fee, but must resign the case on the arrival of the physician first engaged.

ARTICLE V.—DIFFERENCES BETWEEN PHYSICIANS.

SECTION 1.—Diversity of opinion and opposition of interest may, in the medical as in other professions, sometimes occasion controversy and even contention. Whenever such unfortunate cases occur and cannot be immediately adjusted, they should be referred to the arbitration of a sufficient number of impartial physicians.

SEC. 2.—A peculiar reserve must be maintained by physicians toward the public in regard to some professional questions, and as there exist many points in medical ethics and etiquet through which the feelings of physicians may be painfully assailed in their intercourse, and which cannot be understood or appreciated by general society, neither the subject-matter of their differences nor the adjudication of the arbitrators should be made public.

ARTICLE VI.—COMPENSATION.

SECTION 1.—By the members of no profession are eleemosynary services more freely dispensed than by the medical, but justice requires that some limits should be placed to their performance. Poverty, mutual professional obligations, and certain of the public duties named in Sections 1 and 2 of Chapter III, should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public or by the rich, or by societies for mutual benefit, for life insurance or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege.

SEC. 2.—It cannot be justly expected of physicians to furnish certificates of inability to serve on juries, or to perform militia duty; or to testify to the state of health of persons wishing to insure their lives, obtain pensions or the like, without a pecuniary acknowledgement. But to persons in indigent circumstances such services should always be cheerfully and freely accorded.

SEC. 3.—Some general rules should be adopted by the physicians in every town or district relative to the minimum pecuniary acknowledgment from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.

SEC. 4.—It is derogatory to professional character for physicians to pay or offer to pay commissions to any person whatsoever who may recommend to them patients requiring general or special treatment or surgical operations. It is equally derogatory to professional character for physicians to solicit or receive such commissions.

Chapter III.—The Duties of the Profession to the Public.

SECTION 1.—As good citizens it is the duty of physicians to be very vigilant for the welfare of the community, and to bear their part in sustaining its laws, institutions and burdens; especially should they be ready to co-operate with the proper authorities in the administration and the observance of sanitary laws and regulations, and they should also be ever ready to give counsel to the public in relation to subjects especially appertaining to their profession, as on questions of sanitary policy, public hygiene and legal medicine.

SEC. 2.—It is the province of physicians to enlighten the public in regard to quarantine regulations; to the location, arrangement and dietaries of hospitals, asylums, schools, prisons and similar institutions; in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails it is their duty to face the danger, and to continue their labors for the alleviation of the suffering people, even at the risk of their own lives.

SEC. 3.—Physicians, when called on by legally constituted authorities, should always be ready to enlighten inquests and courts of justice on subjects strictly medical, such as involve questions relating to sanity, legitimacy, murder by poison or other violent means, and various other subjects embraced in the science of medical jurisprudence. It is but just, however, for them to expect due compensation for their services.

SEC. 4.—It is the duty of physicians, who are frequent witnesses of the great wrongs committed by charlatans, and of the injury to health and even destruction of life caused by the use of their treatment, to enlighten the public on these subjects, and to make known the injuries sustained by the unwary from the devices and pretensions of artful imposters.

SEC. 5.—It is the duty of physicians to recognize and by legitimate patronage to promote the profession of pharmacy, upon the skill and efficiency of which depends the reliability of remedies, but any pharmacist, who, although educated in his own profession is not a qualified physician, and who assumes to prescribe for the sick, ought not to receive such countenance and support. Any druggist or pharmacist who dispenses deteriorated or sophisticated drugs or who substitutes one remedy for another designated in a prescription, ought thereby to forfeit the recognition and influence of physicians.

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

SEPTEMBER, 1903.

EDITORIAL NOTES.

SCIENTIFIC EDITORIALS.

The JOURNAL is under obligations to the *Occidental Medical Times* and begs to acknowledge that fact. It had feared that its little paragraph about "Scientific Editorials" had been wholly overlooked, and was to be quite forgotten, when the *Times,* in its July number, was good enough to revert to the matter.

Now, the Publication Committee, which has the task of editing the JOURNAL, is made up of men from the ranks of the Society; they have had no special training in medical journalism, and they have read very carefully what the editors of the *Times* have seen fit to say; but they do not quite see just why the *Times* spoke as it did. Why did the *Times* think the JOURNAL was intending to turn to "personal or partisan" matters? Had the JOURNAL said so? Had the JOURNAL done it without saying so? Will the *Times* answer? Will the *Times* continue the really kind office it has begun and tell the JOURNAL exactly how it has erred, or proposed to err in these particular matters? If the JOURNAL has erred, it is ignorant of it; it has no more intention of opening its editorial pages to controversial matters than it has of opening its advertising pages to charletanry. It has a very high idea of its duties to the Society, and it intends to deal "with the present, the living, the actual status of questions that are before us. It is the essence, concentrated and condensed," of all matters that affect the Society, or that portion of the profession outside the Society that the JOURNAL intends to discuss and is discussing. It may sometimes have to refer to men—for the Society is made up of them; it may even refer to them by name, but it never intends to do this as the representative of a party or a faction. "Subjects germane to the government, and improvement of the Society," shall have full presentation, but always in a way dignified by the absence of controversy—the JOURNAL is above controversy.

Because of this last fact the JOURNAL forgives the *Times* for quoting twice its statement that some work could not be done unless remuneration were offered. The JOURNAL knows that fact, and tells it to the *Times.* Men will work out the scientific problems of subjects in which they are specially interested, but the work is part of their treatment of the whole subject, and the credit is theirs. Men will not do that work in an impersonal manner, as in the editorial pages of a journal. Surely the *Times* knows this. Finally, the JOURNAL begs that the *Times* will continue its kindly and welcome criticism, promising that the Publication Committee will respect the wider experience and riper judgment of its seniors; but the JOURNAL is debarred, by its position, from offering to perform a similar office for the *Times.*

INITIAL PUBLICATION.

Article VI, Section 3, of the By-Laws of the State Society reads: "The Committee on Publication shall consist of five members. It shall supervise all the publications of this Society, and it shall have full power to determine what papers, or portions of papers, shall appear in the printed transactions (JOURNAL). No paper that has appeared in print, or has been read before any medical association prior to its presentation to this Society, shall be published in the transactions (JOURNAL)." While the letter of the law does not explicitly state that papers read before the State Society at its annual meeting pass out of the control of their authors, the spirit of the law, unquestionably, favors that disposition, giving the Publication Committee the option, and imposing upon it the obligation of selection of such papers as it may choose to print. A number of papers read at Santa Barbara have appeared in other publications without the consent of the Publication Committee, or have been read before county society meetings. This action on the part of authors is, to say the least, scarcelv treating the committee with the courtesy it has a right to expect. From the viewpoint of the publisher, additional value is given a first publication, similar to the value given by the lay press to an "exclusive story." Members of the State Society should have enough pride in their own JOURNAL to give it the option on their papers. No magazine or periodical prefers to fill its pages with matter which any considerable number of its readers has seen before; and while it may be entirely proper and commendable to give a carefully prepared treatise as much dissemination as possible, at the same time the start should be made in the "home paper." In case an author wishes to have his article published in a journal

devoted to a particular branch of medical science, or in one having a larger circulation than the STATE JOURNAL, an arrangement may be made by which the article can be published simultaneously in the two periodicals.

RELIEF IN SIGHT.

Elsewhere in the JOURNAL will be found an account of the recent meeting of the American Pharmaceutical Association. It is well within the truth to say that practically the only questions discussed very generally were the need and desirability of dealing with the evils recognized in lack of uniformity of standard, and too frequent adulteration and impurity of medicines, and how a more friendly feeling between physician and pharmacist might be brought about. In regard to the former topic, it appears that the very moderate resolutions reported by the committee on a proposed National Bureau of Medicines and Foods were accepted and endorsed, practically unanimously. There seems to have been large difference of opinion as to whether the general plan suggested by the committee (published in the July JOURNAL) was the best possible plan. It is but natural that any question of such great importance should be a matter of much discussion, and the more discussion this question receives, the better; for out of much discussion may come some needed relief. That a modification of the plan mentioned, introducing such features as it has been shown are necessary, will be adopted before long, now seems reasonably sure. It seems to be conceded that things are growing worse and that eventually the correction will come in a manner not altogether desirable unless the move toward correction has its inception with those most interested in having it properly done.

THE CARELESS PHARMACIST.

When reports such as that presented by Mr. Beringer to the American Pharmaceutical Association, on analysis of phenacetin, are brought to the attention of the physician, he certainly can not be blamed for a feeling of distrust. He learns that at least one pharmacist out of 182 was guilty of filling a prescription calling for ten grains of phenacetin with twenty grains of acetanilid. How many others are equally careless and dishonest? We know that there are not many, but we also know there are some. Shall the physician specify some pharmacy where his prescription is to be filled and thus lay himself open to the charge of improperly receiving a commission from the druggist, or shall he do his own dispensing? These questions were brought up not once, but many times, at the meeting of the Pharmaceutical Association, and it was evident that the great mass of pharmacists desire to see the line drawn between the dishonest and careless, and the honest and careful. When all interested are agreed upon the need for and the desire for some particular undertaking, it would seem scarcely possible to prevent such action. Most pharmacists are neither careless nor dishonest, but the few who are permitted to be so injure the many who are not. It is the many who are straight who will have to combine in the correction of the few who are not and who bring discredit upon all.

MEDICAL SOCIETIES AND PUBLIC PRESS.

An admirable idea seems to have been born into the world by the New Castle County Medical Society of Delaware. It is no less than a plan for presenting things medical to the public in a truly ethical and professional manner. Statements which it may be desired to have placed before the public in the lay press are to be prepared and signed by a "press committee," and thus the personal advertising of the author prevented. It seems to the JOURNAL that such a plan has everything to commend it and little or nothing to be urged against it. To be sure, some one individual will have to do the writing for the proposed committee, but it is highly probable that in most cases the individual will be willing to sink his identity in an impersonal committee, that the result may be to the public good. Without effort one can think of many questions which it is highly desirable that the public should be enlightened upon, yet which a physician of standing would not care to publish over his signature for reasons well recognized. By all means let us have press committees of our medical societies.

WORK FOR EVERY MEMBER.

There are but few county medical societies in the State unaffiliated with the State Society, and their reason for staying outside is very difficult to understand. No argument is required to prove the advantages of a strong State Society; its power for doing good and its undeniable influence in shaping important measures for the advantage and protection of members of the profession, are self-evident. It must therefore be presumed they are unaffiliated simply through a lack of energy, or, mayhap, a lack of harmony in their ranks; and just here is where members of the State Society may find a field for some desirable missionary work. Besides the unaffiliated county societies there are a few counties entirely unorganized, in some of which this inaction is quite inexcusable. The Board of Trustees has divided the work of infusing some life into these dormant localities, acting as councillors each trustee having a certain section as-

signed him. The work cut out for the councillors can be done only through the assistance of energetic and willing members of the profession in these localities, who will take the initiative in the matter of organization or affiliation. There is probably not a member of the State Society who is not acquainted with at least one physician in these "outside counties," and by requesting these physicians to interest themselves in bringing the counties into the State Society, great assistance will be rendered the trustees in their work of completing organization of the entire State.

IGNORANCE OF MEDICINE.

The criticism has been made by a member of the Board of Examiners that while those recently examined showed a satisfactory and even excellent knowledge of surgery, anatomy, etc., they were weak in bacteriology, only a trifle better in pathology, and apallingly bad in medicine. Is this suggestive of general carelessness in the teaching of medicine, or does it indicate a preference on the part of the student for surgery, on which field the limelight plays and where the rewards are, sometimes, quickly won? Whatever the cause, there seems little doubt that the knowledge of practice of medicine possessed by the candidates was astonishingly small.

SECRETARIES SHOULD ASSIST.

Another appeal must be made to the secretaries of county societies to send in for publication in the STATE JOURNAL abstract reports of the proceedings of their meetings, and personal mention of their members. This feature can be made complete only by coöperation of the officers of county societies with the Publication Committee. Largely it must be a labor of love, as is also the work of the committee. The STATE JOURNAL is being issued at a considerable expense to the Society, and is not yet in a position to pay for "news." If it were a private enterprise it would be a different proposition, and correspondents would naturally expect to be paid for assisting in its production; but all members of the State Society are joint owners in the JOURNAL and all should be willing to assist in making it fulfill its mission and accomplish the purpose of its being. A few moments devoted to the preparation of monthly reports would result in furnishing members all over the State accounts of what their professional brothers are doing in the different sections, and would also be a means of promoting better acquaintance and more cordial relationships.

A NEW DEPARTMENT.

The JOURNAL desires to be as useful to all who practice medicine on this Coast as it can be made to be. It also desires to help, in every way possible, the practice of medicine, the improvement of medicines, and the upbuilding of the physician's first lieutenant—the pharmacist. To that end the JOURNAL has established a new department, known as the Materia Medica Department; for a fuller statement of the work outlined for this feature of the JOURNAL, see page 312.

FROUDE-CARLYLE.

With many protestations of disgust, but with much evident joy, publications all over the world have been publishing editorials and leaders on the "Froude-Carlyle controversy," as one brilliant editor calls it. As both men are dead and probably resting quietly and peacefully in spite of all this editorial hub-bub, such a caption seems rather startling. About as many arguments of a purely personal and delicate nature have been advanced by the proponents as have been brought forward in rebuttal, and the argument seems to be one in which each editor settles the case for himself. It is unfortunate that so little of the milk of human kindness is to be found in editorial sanctums, and that so few remember, *"De mortuus nil nisi bonum."*

THE CURIOUS MANUFACTURER.

The manufacturer of pharmaceuticals is a curious genius. He suavely and blandly asks everyone to trust him; yet he has no trust whatever in his fellow manufacturer. Everything he buys from a brother of the craft who himself makes the same strenuous demand to be trusted, is assayed and frequently sent back. The retort courteous passes—quite *sub rosa*, of course—from manufacturer to manufacturer; but they all join in the chorus and sing together: "We are absolutely honest and you must all trust us." And this while they continue to make and market preparations of jabarandi containing no pilocarpin; strophanthus that is lacking absolutely in strophanthin; iodid of potassium loaded with iodate and adulterated with bromid; and so through the long, sickening list. There is some retributive justice, but not much. It is reported that the child of one manufacturer died under the administration of his own Tr. Strophanthus which he had made from the cheap seeds and which contained not a trace of the alkaloid for which it was given.

SANTA CLARA RESOLUTIONS.

Elsewhere in the JOURNAL will be found the resolutions unanimously passed by the Santa Clara County Medical Society at its last meeting. The question under consideration by the committee of this county society is one of the greatest importance to all physicians of the State, and particularly to those who are not located in the larger cities; hence we urge upon every member of the State Society the necessity for a very careful reading of the resolutions passed at San Jose. The Board of Medical Examiners stands between the public and the charlatan, and is the only protection given the public by the State against the unscrupulous greed, fraud and dishonesty of the quack and the "healer." Either an attack upon the Board is justified, or it is not; if the former, then action cannot be taken too quickly; if the latter, then every reputable physician of the State should come to the support of the Board and see to it that the law is carried out. In the larger cities feeling is apt to run high, and personal disputes sometimes lend bias to general questions of polity. Therefore it is the duty of physicians who are uninfluenced by the city surroundings, to take up this matter, consider it most carefully, and act in accordance with their determinations. In this spirit the JOURNAL has called the attention of the physicians of the State to the issue under consideration, and we shall continue to lay all facts and statements presented before the profession of California. We feel it is a duty to see that the matter receives the fullest consideration possible, and the only way this can be done is by publishing all statements germane to the question in the pages of the JOURNAL.

TUBERCULOSIS COMMITTEE.

At the last meeting of the Medical Society of the State of California, the following committee was appointed to investigate the prevalence of tuberculosis in this State, and to make recommendations to the Society at its next meeting at Paso Robles.

Dr. F. M. Pottenger, Los Angeles, Chairman; Dr. Geo. L. Cole, Los Angeles; Dr. Jno. C. King, Banning; Dr. Geo. H. Evans, San Francisco; Dr. Edward von Adelung, Oakland, Secretary. This committee started work immediately by directing its secretary to send to all practising physicians in the State, a copy of the following questions:

1. How many cases of consumption (pulmonary or laryngeal tuberculosis) are under your care at the present time?

2. In your opinion, should anything be done to prevent the spread of tuberculosis in California?

These questions were sent out during last May and June, to every available address. It is desired that those whose names were not on the Secretary's list send their names and addresses and answers to the Secretary, Dr. von Adelung. Over 1200 replies have been received, showing a keen interest in the subject in all parts of the State, and a number of valuable suggestions have been received. It is the purpose of the committee to gather further data respecting the measures adopted in other states, in order to be able to render a comprehensive report at the next meeting of the State Society.

FINAL JUDGES OF SUCCESS.

Who is the final judge of the success or failure of a given surgical procedure?

This question has been suggested by a discussion at a recent meeting of a medical society. In this discussion the physicians spoke on the pathological side of the question. Admitting the improvement of the patient after the operation, they asked if it were due really to the operation that had been done, and if it were due to this, did the success come in accordance with the idea on which the operation was based or because of other conditions not taken count of by this idea? The surgeons claimed that the patient had been in the care of physicians, that they had failed to help him, that the operation was done because of this failure, and that after the operation relief had come. Under these circumstances the surgeons seemed to be quite justified in assuming that the operation had acted in accordance with the theories on which it was based, and that the relief was a logical outcome of the intervention. It is not necessary to refer to the discussion itself any more, but it can be easily seen that the question raised in it was left an open one.

This question is not novel. It comes up in connection with not a few conditions, and these always relate to what are known as the borderland cases; those in which both physician and surgeon has an interest; but in which the division of the interest is not yet well defined. Appendicitis may be taken as an example. It is generally assumed that this is generally a surgeon's case; yet many physicians still treat it medically, and often for slight primary attacks successfully; indeed, the claim that it is a purely surgical condition is negatived by the fact that the surgeons are still complaining that they are called in too late. The gall bladder has not advanced so far as the appendix on its path from medicine to surgery, and the liver lags still farther behind, except for certain well recognized surgical lesions. Kidney surgery is a debatable matter, and it to-day is, perhaps, the most prominent figure on this borderland, since nephroxy has become popular and decapsulation of the kidney has been advised as a remedy for chronic ne-

phritis, a condition that has always been purely a medical lesion. Gynecology offers not a few problems for the physician to fight out with the specialist, and the sacred precincts of the lungs, even, have been invaded; and the emptying of tuberculous abscesses, as well as the amputation of tuberculous apices, have shown that the surgeon is ready to discuss these hitherto purely medical matters with the physician.

These few illustrations are offered, though they may not be necessary; but the question may at once be asked, who is going to decide these matters finally? It will be granted that the patients cannot be judges. It will be granted, also, that surgeons are not going on doing any particular operation from which they do not get the desired therapeutic result. But it is not difficult to imagine cases in which an occasional seeming success may bias the surgeon's ideas, or cases in which a definite but temporary benefit may give the surgeon an optimistic view point which may not be fully warranted by the final results. It is easy, too, to think of the final results not being always known to the surgeon, the patient keeping in touch with the surgeon only so long as his benefit lasted, and turning to others, the physicians, when his relapse came. Of course if a surgeon is keeping special watch of his patients for the purpose of creating personal statistics to check off his work for his own interest, he is wholly outside the category to which reference is made. The number of these men, however, is comparatively small everywhere, and there is a large number who are guided by the most recent announcements in surgical publications, and who base their operations on the dicta of others and lose sight of failures very readily.

What, however, becomes of the patient? It is his inherent impulse to search further for the help that has failed him, and he naturally turns back to the physician. There has been no use of the imagination in these statements. The experience of every surgeon and of every physician has proven the facts again and again, and the physician, under the circumstances, naturally becomes the judge of the surgical procedure.

The question has not, however, only one side. The surgeon is not at all infrequently called to sit in judgment on the work of the physician, and this fact counts all the time for the good of the patient; for two sets of men, looking at one question from two distinct points of view and each considering, from his own point of view, the work of the other, cannot fail to get a better composite idea than could either alone. The laity appreciate this, and often ask that a surgeon or physician be called in consultation; and the medical profession appreciates it, for it is constantly providing meetings of physicians and surgeons where each may discuss the other's methods. All this is very trite but it leads up to the assertion, which was the idea prompting what has been written, that the final judges of the success of a given surgical procedure may often be the physicians.

THE PUBLICATION COMMITTEE.

All the members of the Publication Committee attended a regularly called meeting of that committee on the evening of August 24th, at the office of the JOURNAL. Many matters of considerable importance were brought up and discussed, and at the close of the meeting the editor was requested to prepare an abstract of the various business transacted, for the editorial columns of the present issue. In addition to a very careful consideration of the cost of publication, etc., the following matters were considered and acted upon:

The request had been presented from several manufacturers and advertisers to publish "reading notices"; on motion it was unanimously decided that no reading notices of any sort should be published in the JOURNAL. The advertising pages are for the use of proper concerns in which to make proper statements; advertising matter in the disguised form of "reading notices" cannot be run in the columns of reading matter.

Certain advertisements that had been sent in with a request for space were considered very carefully, and rejected, as not being such as the JOURNAL could properly recommend.

On motion it was unanimously decided to not publish any papers read at the last meeting of the State Society which had been published in some other periodical prior to their publication in this JOURNAL. It was decided that if authors of papers desired to have them printed elsewhere they should communicate with the JOURNAL, to the end that simultaneous publication in the two periodicals might be arranged for. Several papers were rejected for this reason.

A new department, in which matter relating to both medicine and pharmacy could be published and in which questions of interest to both physician and pharmacist might be considered, was authorized; the department is to be known as the Department of Materia Medica, Therapeutics and Pharmacy.

The editorial matter and leading articles for the present number were considered and approved.

It was unanimously agreed that the Publication Committee should meet regularly on the evening of the first Monday of each month, for the purpose of considering the makeup of the next succeeding issue.

The Publication Committee then adjourned to meet at 8:30 p. m., September 7th.

SYMPOSIUM ON TUBERCULOSIS.

THE RATIONAL TREATMENT OF PULMONARY TUBERCULOSIS, WITH REPORT OF CASES.*

By F. M. POTTENGER, Ph. M., M. D., Los Angeles.

Physician in charge of Pottenger Sanatorium for Diseases of Chest and Throat, Monrovia, Cal.

IN DESCRIBING what I would call the rational treatment of pulmonary tuberculosis I have no single remedy or measure that I wish to put forth as a cure for this disease. On the contrary, I believe the rational treatment to be that combination of remedies and measures which best suits each individual case. Although at many times in recent years "cures" have been announced for this disease, as yet the medical profession has little faith in any of them.

Personally I have far more faith in the curability of this disease than is shared by the profession generally. I recognize in many of the remedies and measures which have been brought forth valuable aids which may be turned to the advantage of the tubercular individual; nevertheless, I must admit that, as yet, there has been nothing produced which will cure more than a limited number of the cases in the advanced stages in which we usually find them in general practice.

The basis of treatment, no matter what measures are adopted, must be common sense; yet I believe it is the duty of the man who is treating tuberculosis to hold himself ready and willing to investigate every new treatment and every new remedy which has any rational basis for its existence.

In the treatment of the cases which I report today, it has been my aim to treat the individual as well as the disease. Often I am asked, "What is that remedy that you use in the treatment of tuberculosis?" (referring to the various culture products). To this I always reply that I use everything that I believe will aid in bringing about the recovery of my patient. In dealing with so complex a disease as pulmonary phthisis I believe this attitude to be imperative.

If there is any measure of greater weight than others which the phthisiotherapist bears to the general profession it is the importance of making an early diagnosis. Tuberculosis can be diagnosed soon after the lung has been invaded, a long time before the advent of bacilli in the sputum; and, fortunately for the afflicted, and to the honor of the medical profession, it is being discovered at this time far more often than formerly. The necessity of this early diagnosis is apparent to anyone who will take the trouble to examine the records of those who are treating this disease. Whether or not the patient shall live depends very much on whether or not the disease is discovered early. If diphtheria is not discovered until it is too late to successfully use antitoxin; if appendicitis is not diagnosed until it is too late for a successful operation, the physician is blamed for the loss of a life. In tuberculosis the results of a failure to recognize the early symptoms of disease are just as direful to the patient; and, now that the question of early diagnosis has been so carefully worked out, a failure to recognize incipient pulmonary tuberculosis when the patient presents himself for examination will soon be held just as blameworthy as a failure to recognize diphtheria or appendicitis. It should be thoroughly branded on the mind of every practitioner of medicine that tuberculosis is curable, and also that its curability depends on the earliness of treatment. While from 50 to 95 per cent of first-stage cases are being cured, only from 5 to 25 per cent of those far advanced are having their disease arrested.

There are three elements which enter into the treatment of tuberculosis: The disease, the patient and the physician. The stage of the disease we cannot control; its course we may check or modify and, in many instances, we may bring about a cure. To produce this desired result there must be a hearty coöperation on the part of patient and physician. I believe that one of the strongest points in a successful phthisiotherapist is his power to secure a hearty and intelligent coöperation on the part of his patient.

Other things being equal, the chances of cure in a given case are far greater if the patient is willing and determined to carry out the directions of the physician. I have seen early-stage cases have a hard battle for life simply because they thought it was not necessary to obey all the whims, as they considered them, of the medical attendant. Life is too dear and tuberculosis is too serious a disease to ever be treated in any other way than as a grave malady. A life is always in the balance and both patient and physician must recognize the absolute necessity of uniting their efforts in order to tip the scales on the favorable side.

In most cases I have had the hearty coöperation of my patient. In a few instances, however, I have seen harm done, treatment prolonged and recovery jeopardized by disobedience and indiscretion. Sometimes the tubercular individual, for long periods, is at a point where he is just as apt to get worse as to improve. At such times the greatest care must be observed; an overex-

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

ertion, an error in dress or a night at the theatre, or at a social gathering, may be sufficient to turn the tide against him. Although my patients have been treated in ordinary office practice without the advantages of a sanatorium, yet I have endeavored to carry out the same measures which have there been found so efficient. In doing this many obstacles have been in the way, and the patients have had the disadvantage, at times, of improperly situated and illy-ventilated rooms; and often have been obliged to subsist on food which was not at all suited to their needs. Nevertheless, in spite of these disadvantages, the results have been very satisfactory.

I now wish to discuss some of the remedies and measures which contributed to the cures and ameliorations in these cases.

CLIMATE.

These patients have been treated in what I believe to be one of the best all-year-round climates in the world. Most of them have been treated at Monrovia, a foothill town at the base of the Sierra Madre mountains, at an elevation of about one thousand feet; the rest in Los Angeles. The special points of advantage in our climate are:

A pure, moderately dry, aseptic air.—These special qualities of the air are shown in the slowness with which animal matter decomposes; dead animals drying up instead of decaying as they do in less favorable climates. This fact is taken advantage of by the natives who are in the habit of hanging their meats up in the open air in order to preserve them. The favorable conditions of the weather make it possible for the tubercular individual to spend his entire time surrounded with this pure, aseptic air.

A maximum of sunshine.—The weather bureau station for Sierra Madre, which is only two miles west of Monrovia and which has practically an identical climate, shows for the year 1901, which was a year of unusual rainfall for this section, 258 clear days, 42 partly cloudy days and 65 cloudy days, 34 of these being rainy. Thus it can be seen that patients can be in the sunshine 300 days in the year; and that they can be in the open air without being disturbed by rains 331 days in the year. The effect of this eternal sunshine, aside from that upon the disease itself, is to keep patients cheerful and happy, driving away blues and homesickness.

Freedom from storms. The foothill region of Southern California is particularly free from storms. There is a constant movement in the air due to the gentle ocean breezes, yet we rarely have a severe windstorm. Sandstorms and fog, which are common in the valley below, are seldom seen here. The rainfall in this region is very light, being usually less than ten inches for the year.

Freedom from sudden changes.—This is very favorable to the patient, while a wide diurnal range produces a tonic effect. The cool nights which accompany it, insure sleep and allow the patient to awaken in the morning rested for the day.

Dry, porous soil. It is well known that drainage plays an important part in the tuberculosis problem and that a dry, porous soil is the best and most favorable for the tubercular individual. The character of the soil here is such that after a heavy rain, in two or three hours the streets are dry and can be traveled on foot or bicycle without inconvenience.

Surely no place can be better suited for the "fresh air" treatment than here. My patients live in the open air all day and sleep in tents or in rooms with open windows at night, thus being constantly bathed in pure, fresh air.

FOOD.

I order for my patients a very liberal diet, the basis of which is meat in the form of rare steaks, roasts, chops (lamb and mutton), beef juice extracted with a meat press, milk, eggs and fats in the form of cream, fresh butter and breakfast bacon; aside from this enough vegetables and cooked fruits are allowed to keep the appetite from tiring. All pastries and articles such as are apt to interfere with digestion are forbidden.

The purpose to be kept in view in prescribing a diet for tubercular individuals is to provide a maximum of nourishment with a minimum expenditure of digestive energy; so, if patients will take from one and one half to two quarts of milk and from four to six ounces of beef juice or half a dozen eggs a day, it matters little whether they eat much solid food or not as far as nutrition is concerned; but the appetite will be better where patients partake liberally of solid food. The tubercular individual who has a poor appetite or a disgust for food can usually digest much more food than he is willing to eat. His digestive power is much better than his appetite indicates, and it is surprising how much food can be taken and digested by one who spends the greater portion of his time in the open air, even though not exercising.

HYDROTHERAPY.

There are a great many hydrotherapeutic measures that can be applied in the treatment of tuberculosis, but one which I have found most useful and one which can be applied almost universally with benefit is the morning cold rub. This consists in the application of cold water to the surface of the body either with the hand, a sponge, or a coarse cloth followed by a vigorous rubbing so that the skin is left in a glow. If the baths are begun with tepid water and gradually reduced in temperature each morning, a week or more pass-

ing before the water is taken at room temperature, the percentage of people who cannot take them with benefit is very small. Their action is to increase the activity of the skin, harden the patient against "catching colds," aid digestion, and serve as a general nervous tonic.

REST AND EXERCISE.

To adjust the proper amount of rest and exercise to the individual is an important question. My plan, in brief, is to forbid exercise if the temperature has a tendency to reach 100°F. in the afternoon, unless it be a short walk in the morning about one hour after breakfast. Patients who have no rise in temperature, if they are in the early stage of the disease, are encouraged to walk enough to harden themselves and yet not enough to tire. Those in the advanced stages, in whom the temperature remains below 100° F., have exercises prescribed according to the lung condition and complications present. Those who are running a temperature are sure to gain faster if they spend much of their time, especially that time when the temperature is up, in the reclining position, preferably in bed. I believe one of the most important pieces of advice that can be given to the tubercular individual is, "never to tire himself."

REGULATION OF THE PATIENT'S LIFE.

Every act of the patient should be under the guidance of the physician. He must understand that he is a sick individual and that he cannot do what well people do. Dissipations of all kinds must be denied the tubercular, and a quiet life followed.

Thus far I have spoken only of measures for the building up of the individual. But this is not all we can do. There are certain remedies that we can use which have a specific action in tuberculosis; and besides, there are many remedies and measures which can be advantageously directed against certain conditions and complications. There has been too much of a tendency in the treatment of tuberculosis for men to become known as the followers or representatives of some special remedy or measure. One is known as an exponent of the fresh air cure, another the creosote treatment, another the tuberculin treatment, another places his faith in inhalations, while another cures his cases by electricity. How much better it would be if all could be known simply as phthisiotherapists, as men who are devoting their energies to the cure of tuberculosis and not to the advancement of any particular measure. To cure pulmonary tuberculosis, especially in the advanced stages, requires all the help that we can get, and he will be the most successful who will sacrifice pet measures to the cure of the disease.

He who sees nothing more in the cure of phthisis than the employment of fresh air is little, if any, better than he who sees nothing in the treatment of disease other than the administration of drugs. I now wish to mention several measures which have greatly aided me in the treatment of this disease.

CULTURE PRODUCTS.

My experience with culture products in the treatment of tuberculosis began seven years ago. Since then I have been using them and studying their action. I have become firmly convinced that in them we have a very valuable aid in the treatment of this disease. I have given in all perhaps seven thousand injections, and have never seen harm done, nor have I seen an abcess at the point of injection. My experience tells me that they will do in practice what should be expected from theory and animal experiment, namely, afford an immunity to the healthy tissue against the extension of the disease, render those treated less liable to a relapse when an apparent cure has been attained and stimulate the tubercular tissue to repair. (1), (2), (3).

Koch, Spengler, von Ruck, De Schweinitz and others have shown that the guinea pig can be immunized against infection by the use of tuberculin. Recently this same immunizing property has been proven by Behring (4) and Pearson and Gilliland (5) in the case of cattle. Regarding the effect of tuberculin, Aschoff (6) says that it does not act as an antitoxin in the diseased areas, but in the healthy tissues, producing an immunizing effect which protects the well tissues from invasion. There is also a stimulation of the diseased tissue which aids in repair. This I have repeatedly observed in the treatment of lesions in the larynx.

From statistics gathered, as well as from practical experience, I believe that these remedies will increase the patient's chances of cure by at least 20 per cent. Their use requires care and skill, but no more skill than any intelligent practitioner can acquire by patient study and practice.

DIRECT MEDICATION TO THE AIR PASSAGES.

I do not believe that anyone who understands the pathology of pulmonary tuberculosis believes that it is possible to cure the disease by the application of remedies directly to the air passages; nevertheless, there are certain symptoms that can be greatly alleviated by this form of medication.

I make it a routine matter to look after the upper air passages and see that respiration is as free as possible; however, I do not think it wise to operate or make an open wound in the upper respiratory tract while the sputum contains bacilli. Until they have disappeared palliative measures are best. Many a cough can be alleviated and

controlled by attention to the pharynx and larynx. This routine work also makes it possible to discover disease in the larynx before destructive changes have taken place.

Daily inhalations make the expectoration easier, lessen the cough and have some power in disinfecting the larger air spaces. The importance of this line of treatment is overestimated by the layman, for it appeals to him as going directly to the seat of the trouble.

A measure which I deem of great benefit in certain cases is the intratracheal injection of remedies. During the past year I have been treating two cases with large cavities in the upper lobes by this method. I have the patient sit inclined to the side on which the cavity is found, holding his head erect. Then, with a good light and under the guidance of the laryngeal mirror I quickly inject the remedy while the patient slowly inspires. The patient is then put upon a couch with his hips elevated and shoulders low, so that the remedy finds its way by the aid of gravity, into the cavity. If the attempt has been successful the fluid can easily be detected in the cavity. I have been using for this purpose sterilized olive oil containing 4% menthol, 4% camphor and 4% iodoform. Recently I have substituted for this izal from 1% to 10% in Price's redistilled glycerin. The glycerin has the advantage over the oil in that it mixes readily with the sputum and also in that it will diffuse itself further into the finer bronchi by means of capillary attraction. It has been shown by Prof. Delepine that a cubic centimeter of an izal glycerin mixture containing 1-125 cc. of the remedy will, when mixed with an equal quantity of sputum, kill the bacilli in one hour (7). By the aid of these injections I have been able to help convert one secreting cavity into a dry one and in the other case see the secretion markedly decrease. The largest quantity that I have used at any one time is five drams, although the patients can tolerate much larger quantities.

PNEUMATIC CABINET.

I have used this apparatus with great benefit after activity has ceased and the moisture has largely or entirely disappeared. I have never been able to bring myself to the point of thinking it best to use it in cases with much moisture in the chest. By its use collapsed air cells can be opened, the capacity of the chest increased and absorption hastened, thus relieving the embarrassment to the circulation and hastening the flow of blood in the part. Another place where the cabinet can be used to advantage is in developing the chests of those who seem to be especially predisposed to tuberculosis.

DRUGS.

In my practice drugs play a secondary part to the measures which I have already mentioned. I only use them as adjuvants to general measures and for the correction of certain symptoms. Cinnamic acid I have used in a few cases and believe it to be of some value, although my experience is too limited to use as a basis for judgment. Ichthyol seems to facilitate expectoration and aid digestion in certain cases. Creosote and creosotal I never use for any specific action; however I do use them in intestinal putrefaction, in cases of severe cold where the inflammation has extended below the larynx, and the latter I always employ in case of pneumonia. Aside from this, my use of drugs consists for the most part in the employment of a few stomachics, intestinal antiseptics and general tonics in cases where they seem to be especially indicated.

The symptoms of cough, night sweats and hemorrhage I am rarely called upon to treat among my patients. The careful regulation of their lives makes these symptoms very rare. Although 34.6 per cent of my patients gave histories of one or more hemorrhages before treatment, not one had one after treatment began. Cough is so well controlled by the care of the upper air passages, inhalations and regulation of the patient's life that I have almost discarded cough mixtures. Night sweats rarely call for measures other than a cool sponge with vinegar and water, or formalin and water on retiring.

In my classification I have followed closely that of Turban, which is as follows:

	PATHOLOGICAL.	PERCUSSION.	AUSCULTATION. BREATH SOUNDS.	AUSCULTATION. RALES.
Stage I.	Bronchitis, peribronchitis. Scattered foci in one apex. No or little expectoration. Generally no tubercle bacilli in sputum.	Normal to slight want of resonance over area of one lobe or over half of both lobes at most.	Over one or both apices harsh or weak vesiculo-bronchial to broncho-vesicular.	None or crackling fine or medium over area of altered resonance.
Stage II.	Bronchitis, peribronchitis, infiltration of slight degree over both supraclavicular and supraspinous fossæ or infiltration of one lobe without other foci.	Decided localized dullness over one lobe, or medium dullness over half of two lobes.	Harsh to broncho-vesicular breathing over the dull areas.	Râles of medium quality.
Stage III.	All cases more advanced than stage II.	Pronounced dullness. Tympanitic note and variations of pitch. Cracked pot sound.	Bronchial or amphoric.	Coarse metallic râles.

In recording results I have designated those cases as apparently cured which at the time of discharge show no clinical symptoms; whose expectoration has disappeared, or if present, contains no bacilli, and whose lungs are either normal upon examination or, if the changes are too far advanced for this to be, at least show no signs of activity. If, after one year, physical and clinical examination and the tuberculin test reveal no signs of disease, I believe that we are justified in calling the case cured. Those cases are spoken of as arrested where the clinical symptoms have disappeared, bacilli are absent, and physical examination reveals no activity; yet the case has advanced too far to speak of a cure until the lapse of time. Those are spoken of as improved who have made gains in general condition, clinical symptoms and physical signs.

With this as the basis of classification there have been treated* 12 cases in stage I, of which number all were apparently cured. So far there has not been a single relapse, although 1 has been dismissed four years; 1, three years; 3, two years; 2, one and a half years, and 5 less than a year. In the stage II there were treated 8, of whom 6 were apparently cured and remain well to-day, and 2 grew worse; 2 have been dismissed one and a half years; 1, one year, and 5 less than a year. There were 7 in stage III, in two of whom the disease was arrested and the rest improved. As yet not one case reported here has died; and even those who are designated as improved are, and have been since dismissal, doing a moderate amount of work with little inconvenience.

This report includes all the patients except those now under treatment, whom I have treated for a period of two consecutive months in the time covered. Of course, if those stage III cases which are reported as improved had remained under treatment longer there is no doubt that one or two more would have been apparently cured, but I report them as they are.

I do not believe that such results as these can be produced by any single line of treatment, but only by a combination of the various remedies and agencies which we have at our command, such as I choose to designate the rational treatment of pulmonary tuberculosis. And then the same interest on the part of the physician must be maintained and the same obedience and cooperation on the part of the patient and his attendants must be had as though the case were one of pneumonia or typhoid fever; but, surely the end attained is worth the struggle.

Case Histories.

STAGE I.

No. 1—Age, 26; history, negative; ill, 3 months; temperature, 99.6°; pulse, 90; cough, slight; expectoration, scanty; lungs, deposit in upper right lobe; weight, 155. Condition on discharge: Treatment, 3½ months; temperature, 98.4°; pulse, 72; no cough or expectoration; weight, 145. Result: Apparently cured. Has been discharged four years and is still well, so we call case cured.

No. 2—Age, 10; tubercular history, positive; ill, 1 month; temperature, 99.6°; pulse, 100; slight hack; tuberculin test, positive; slight deposit at right apex; weight, 71. Condition on discharge: Treated 2½ months; temperature, 98.4°; pulse, 90; no cough; chest clear; weight, 80. Result: Apparently cured. Discharged three years, still well, cured.

No. 5—Age, 34; history, negative; ill, 6 weeks; temperature, 99.4°; pulse, 84; slight hacking cough; no expectoration; tuberculin test, positive; lungs, slight deposit in both apices; weight, 112. On discharge: Treated, 3½ months; temperature, 98.4°; pulse, 79; no cough; lungs, clear; weight, 115. Result: Apparently cured. Discharged two years, still well, so cured.

No. 6—Age, 28; history, positive; ill, 1 month; temperature, 99; pulse, 80; slight hack; no expectoration; tuberculin test, positive; lungs, tubercular deposit in both apices; weight, 131. On discharge: Treated 3½ months; temperature, 98.4°; pulse, 74; no cough; lungs, clear; weight, 132. Result: Apparently cured. Discharged two years, still well, so cured.

No. 14—Age, 25; history, positive; ill, 9 months; temperature, 99.2°; pulse, 90; hacking cough; tuberculin test, positive; no expectoration; right upper lobe infiltrated with rales; weight, 121. On discharge: Treated 2 months; temperature, 98.4°; pulse, 80; percussion and auscultation nearly normal; weight, 123. Result: Disease arrested. Discharged two years, married, lived in Indiana climate, still well and strong; so apparently cured.

No. 21—Age, 32; history, negative; ill, 7 years; climatic arrestment with new outbreak; temperature, 99.6°; pulse, 100; slight hacking cough; expectoration scant, following three small hemorrhages; bacilli absent; tuberculin test, positive; slight tubercular deposit with rales at both apices; weight, 110. On discharge: Compelled to stop treatment at end of two months; temperature, 98.8°; pulse, 90; cough, none; expectoration, none; lungs nearly clear; weight, 117; re-examined 18 months later; lungs clear. Result: Cured. Present weight, 125.

No. 23—Age, 29; history, positive; ill, 6 months; temperature, 100°; pulse, 90; bacilli, positive; cough, mornings; expectoration, ½ ounce; deposit in right upper lobe; weight, 191. On discharge: Treated 3 months; temperature, 98.5°; pulse, 80; cough, none; expectoration, none; lungs clear; weight, 199. Result: Apparent recovery. Discharged 1½ years, still well, so cured.

No. 45—Age, 17; history, positive; ill, 2 months; temperature, 99.8°; pulse, 100; bacilli, negative; tuberculin test, positive; cough, occasional dry hack; no expectoration; deposit in right apex; weight, 120. On discharge: Treated 3½ months; temperature, 98.4°; pulse, 68; lung clear; no cough; no expectoration; weight, 132. Result: Apparent recovery. Discharged 9 months, still well.

No. 47—Age, 29; history, positive; ankylosis of knee of tubercular origin for 20 years; temperature, 99.4°; pulse, 100; cough, severe hacking; expectoration bloody, 1 ounce; bacilli present; pleurisy over right lower lobe posteriorly with involvement of the lung, few rales; weight, 160. On discharge: Treated 2 months; temperature, 98.4°; pulse, 86; no cough; no expectoration; lungs clear; weight, 190. Result: Apparently recovered. Discharged eight months, still well.

No. 48—Age, 51; ill, 5 months; temperature, 99°; pulse, 88; troublesome hacking cough; hemorrhages two months before, followed by bloody expectoration; bacilli, negative; tuberculin test, positive; slight infiltration of left upper lobe with moist rales; weight, 112. On discharge: Treated 6 months; temperature normal; pulse, 78; no cough; no expectoration; lungs clear; weight, 117. Result: Apparently cured. Discharged three months.

No. 63—Age, 22; history, positive; ill, 3 months; temperature, 99.4°; pulse, 85; cough occasionally; expectoration scant; no bacilli; tuberculin test, positive; slight tubercular infiltration in left apex with weakened and slightly roughened respiratory note; weight, 124. On discharge: Treated 6 months; temperature, 98.4°; pulse, 75; no cough; no expectoration; lung normal; weight, 128. Result: Apparent recovery.

No. 67—Age, 23; history, positive; ill, 4 months; temperature, 99°; pulse, 95; cough, slight; expectoration, none; tuberculin test, positive; invasion of right apex with weakened, slightly roughened respiratory note and few rales; weight, 100. On discharge: Treated 4½ months; temperature, 98.4° pulse, 80; no cough; no expectoration; lungs clear; weight, 115. Result: Apparent cure.

*All cases with the exception of No. 1 were treated with culture products in addition to other measures.

STAGE II.

No. 12—Age, 22; history, positive; ill, 18 months; temperature, 100°; pulse, 95; bacilli, negative; tuberculin test, positive; hacking cough; expectoration scanty, often bloody; right upper lobe infiltrated with recent extension to fifth rib posteriorly and also recent extension to left apex; fine crepitant rales over right upper lobe anteriorly; weight, 151. On discharge: Treated 5½ months; temperature, 98.4°; pulse, 80; bacilli, negative; no cough; no expectoration; lung normal, except slight elevation of percussion note and slightly prolonged expiration over right apex; weight, 160. Result: Apparent recovery. Discharged nineteen months, still well, so cured.

No. 8—Age, 34; tubercular history; ill, 3 months; pleurlsy and pneumonia 1 month; temperature, 99.5°; pulse, 95; bacilli, negative; tuberculin test, positive; slight hackIng cough; no expectoration; lower lobe of right lung showed delayed resolution and upper and middle lobes showed tubercular deposits; weight, 108. On discharge: Treated 6 months; temperature, 98.4°; pulse, 74; cough, none; lungs clear; weight, 115. Result: Apparent recovery. Discharged eighteen months, still well, recovered.

No. 25—Age, 19; history, positive; ill, 6 months; temperature, 99.4°; pulse, 96; slight hack; scant expectoration; tuberculin test, positive; right upper lobe infiltrated with recent extensions to middle and lower lobe; weight, 130. On discharge: Treated 4½ months; temperature, 98.4°; pulse, 80; no cough; no expectoration; lungs clear; weight, 142. Result: Apparent cure. Discharged one year, still well, so cured.

No. 28—Age, 43; history, positive; ill, 6 months; temperature, 99°; pulse, 90; bacilli present; cough, mornings, occasionally during the day; expectoration, 2 ounces muco-purulent; infiltration of right upper lobe with extension to middle, and symptoms of softening at level of first interspace; weight, 104. On discharge: Treated 7 months; temperature, 98.4°; pulse, 78; no cough; no expectoration; lung clear; weight, 106½. Result: Apparent cure. Discharged seven months, still well; weight 112½.

No. 54—Age, 28; history, positive; ill, 2 years; temperature, 99.5°; pulse 80; cough, persistent; expectoration, 3 ounces mucous and muco-purulent; bacilli, present, also found two years previously; infiltration of both upper lobes with recent extension to left lower; mucous rales over both upper lobes; weight, 99. On discharge: Treated ten months; temperature, 98.4°; pulse, 78; bacilli, absent; no cough; lungs clear; weight, 110. Result: Apparent recovery.

No. 53—Age, 21; history, positive; ill, 5 months; temperature, 101°; pulse, 96; cough, severe; expectoration, 3 to 4 ounces mucous and muco-purulent; many bacilli; infiltration of left upper lobe with recent extension to left lower and right upper lobes; numerous rales in left upper lobe and few in right upper; weight, 121. On discharge: Treated 7 months; temperature, 102°; pulse, 100; cough, much decreased; expectoration, 2 ounces muco-purulent; many short, thick bacilli, also streptococci and staphylococci; breaking down with evidence of cavity formation in left apex, with some fibrosis; lower lobe clear and right lung nearly clear; weight, 128½. Result: Disease advanced in left upper lobe, but better in all other respects. Classed as unimproved.

No. 54—Age, 36; history, positive; ill, 2 years; temperature, 101°; pulse, 96; cough, moderate; expectoration, 2 to 3 ounces muco-purulent; many bacilli; right upper lobe infiltrated with evidence of softening in an old focus, many medium mucous rales; recent extension to middle lobe; weight, 102. On discharge: Treated 4 months; temperature, 100.6°; pulse, 90; cough, very severe; expectoration, 2 to 3 ounces muco-purulent; many bacilli; left upper lobe infiltrated with cavity present, rest of lung clear; weight, 105. Result: grown worse.

No. 52—Age 38; history, positive; ill, 2 years; temperature, 99.6°; pulse, 84; cough, moderate; expectoration, 4 ounces mucous and muco-purulent; bacilli present; lungs, Infiltration of left upper lobe with extension to lower, few medium mucous rales throughout and pleural rub at base; weight, 80. On discharge: Treated 8 months; temperature, 98.4°; pulse, 84; occasional hack; expectoration scant; bacilli absent; lung clear; weight, 86. Result: Apparent recovery.

STAGE III.

No. 11—Age, 28; history, negative; ill, 2 years; temperature, 99.4°; pulse, 90; moderate cough; expectoration, 1 ounce muco-purulent; many bacilli present; left upper lobe infiltrated with cavity at level of second rib, many rales, right upper lobe infiltrated with rales; larynx infiltrated with ulceration of left cord; weight, 139. On discharge: Treated 3 months; temperature, 98.6°; pulse, 90; cough and expectoration both slightly lessened; bacilli present; dullness over infiltrated parts not so marked, respiratory note improved and rales reduced; larynx healed; weight, 141. Result: Improved. Discharged two years; has done light work steadily since.

No. 23—Age, 19; tubercular history; ill, 2 years; temperature, 99.4°; pulse, 86; cough, moderate; expectoration, 1 ounce mucous and muco-purulent; sputum not examined; entire right lung infiltrated, with many rales; left showed recent invasion of upper lobe; tubercular ulceration of left side of septum; tonsils swollen to point of almost meeting and very painful; left one ulcerated; the tubercular character of these lesions was determined by the local reactions after administration of the watery extract of tubercle bacilli; weight, 147. On discharge: Treated 8 months; temperature, 98.4°; pulse, 75; no cough; no expectoration; left lung entirely clear; right showed slight rise of pitch on percussion at apex and few rales along sternal and vertebral border of lung; septal and tonsillar ulceration healed, and tonsils nearly normal in size; weight, 158. Result: Discase arrested. Discharged ten months; able to do hard day's work on ranch without tiring.

No. 26—Age, 17; history, positive; ill, 2 years 9 months; temperature, 99°; pulse, 88; occasional cough; expectoration, ½ ounce; bacilli present; right upper and middle lobes infiltrated, right lower lobe anteriorly; infiltration and fibrosis in left upper lobe with evidence of cavity; rales throughout infiltrated area; weight, after coming to California three months previously, had increased from 120 to 138, being 10 pounds above normal. On discharge: Treated 9 months; temperature, 98.4°; pulse, 80; few bacilli; slight cough and scanty expectoration; left lung clear, except at junction of bronchus; increased fibrosis; right upper lobe still infiltrated slightly, with few rales; weight, 134½. Result: Greatly improved.

No. 31—Age, 23; history, positive; ill, 21 months; temperature, 100°; pulse, 84; cough severe; expectoration, 4 ounces; bacilli and staphylococci present; infiltration of right upper lobe and left apex with recent extension to right middle and lower lobes; softening at both apices; weight, 128½. On discharge: Treated 4 months; temperature, 98.4°; pulse, 84; no cough; expectoration, ½ ounce; bacilli absent; left lung almost clear; right, slight infiltration at apex; weight, 139½. Result: Disease arrested. Discharged one year, still well.

No. 35—Age, 25; history, negative; ill, 7 months; temperature, 102°; pulse, 140; bacilli in great numbers; cough severe; expectoration, 3 ounces purulent; entire left lung infiltrated with recent extension to right upper and middle lobes; extensive softening, with cavity formation in left upper lobe; many coarse and medium rales throughout entire affecter area; had suffered an acute attack of dilation of heart which had left the organ much weakened; weight, 118. Treated 10 months; temperature, 99°; pulse, 100; cough, occasionally; expectoration, 1 ounce; bacilli numerous; right lung nearly clear; much fibrosis through upper left lobe; few fine mucous rales throughout left lung; cavity nearly dry; weight, 145. Result: Very much improved.

No. 44—Age, 36; history, negative; ill, 8 years since first tubercular; temperature, 99°; pulse, 100; cough, severe; expectoration, 2 ounces mucous and muco-purulent; many bacilli; entire left lung infiltrated with recent extension to right upper lobe. Cavity in left upper lobe; many rales throughout left lung and right upper lobe; weight, 107½. On discharge: Treated 5 months; temperature, 98.6°; pulse, 90; bacilli present; cough, mornings, little during day; expectoration, 1 ounce; infiltration much less; rales fewer; right upper lobe almost clear; weight, 101 (loss due to worry and homesickness; after reaching home reached 112). Result: Much improved.

No. 59—Age, 20; history, positive; ill, 2 years; temperature, 102°; pulse, 100; cough very severe; expectoration, 4 ounces; bacilli present; infiltration of both upper lobes with extension to lower lobes posteriorly; fibrosis throughout right upper and middle lobes; many medium mucous rales over both upper lobes; cavity on right side at level of first rib; suffering from an acute exacerbation due to overexertion; weight, 120. On discharge: Treated 2½ months; lower lobes nearly clear; upper lobes much Improved; cavity nearly dry; few mucous rales over upper lobe of left lung; weight, 125. Result: Greatly improved; weighs now, five months after discharge, 131.

REFERENCES.

1. Pottenger. "Culture Products in the Treatment of Tuberculosis" *Ther. Gazette*, Jan. 1902.

2. Pottenger. "A Study of Tuberculin and Allied Products with Reference to Their Action and the Proper Method of Their Administration." *Ther. Gazette*, Jan. 1903.

3. Pottenger. "A Critical Study of Tuberculin and Allied Products Based Upon a Collective Investigation," *Ther. Gazette*, Mar. 1903.

4. Behring. "*Beitraege zur Experimental Therapie*," 1902.

5. Pearson and Gilleland. *Philadelphia Medical Journal*, Nov. 29, 1902.

6. Aschoff. "*Ehrlich's Seitenkettentheorie und ihre Anwendung auf die kuenstchen Immunisierungsprozesse*," p. 109.

7. Campbell. "The Treatment of Phthisis by Large Quantities of Izal," *Trans. London Tuberculosis Cong.* Vol. III, p. 406.

THE PREVENTION OF TUBERCULOSIS.*

By EDWARD von ADELUNG, M. D.
Health Officer of Oakland, California.

WHILE it is generally recognized both by the profession and by the public that consumption is a common disease, the great importance of tuberculosis in its relation to the public health is scarcely comprehended. Yet a very cursory examination of the subject suffices to reveal facts of a most alarming nature, and to render apparent the terrible mortality and the attendant economic waste caused by the tubercle bacillus.

STATISTICAL.

When one considers that autopsies reveal that nearly two-thirds of the human race are affected by tuberculosis; that the tubercle bacillus kills more than one-seventh of the race (which is a larger mortality than that of all the other infectious diseases combined); that pulmonary tuberculosis alone is responsible for 11% of deaths; that the mortality in the United States may be impressively expressed by stating that 150 American regiments march away each year to certain premature death; or to state it still more strikingly, that the equivalent of a city of 150,000 inhabitants is wiped off the map of the United States every year—when one considers these facts one begins to comprehend the stupendous proportions of the tuberculosis problem. These facts assume a still more cruel aspect when placed alongside the authoritative statement that "tuberculosis is not inherited, is acquired by direct transmission of the tubercle bacillus from the sick to the healthy, and is a distinctly preventable disease."

ANTI-TUBERCULOSIS MOVEMENTS.

For years, now, the anti-tuberculosis agitation has been continuous in Europe and America. Papers have been read, monographs have been written, societies have been formed, lectures have been delivered, sanatoriums have been built, resorts have been opened, fumigation has been practised, quarantine has been enforced, hygienic measures have been installed, congresses have been convened, all for the purpose of curbing the alarming havoc done by the tubercle parasite. And yet, quoting the words recently uttered by Dr. Hermann M. Biggs:

> We still view with comparative indifference the ravages of a disease which causes from one-fourth to one-third of the suffering and death at the best period of life, and this, too, when the evidence at command should be conclusive to every reasonable mind that it can be mostly prevented at a comparatively small cost in sacrifice, labor and money.

CALIFORNIA SHOULD COÖPERATE.

The problem is only just beginning to be grasped; the profession and the public are just beginning to realize the necessity of actually doing something besides talk. We, of the Golden State, are mere stragglers as yet in the war against tuberculosis. It is time we pressed to the front and raised our weapons in defense of ourselves and of our families against the great White Plague, a disease that is acquired almost entirely by the direct transmission of the tubercle bacillus from the sick to the healthy by means of the sputum, and therefore a distinctly preventable disease.

That this sentiment is shared by the profession was made evident in the replies I received to the 200 circular letters that were sent to the physicians of the city of Oakland. In answer to questions as to what prophylactic measures should be adopted besides requiring physicians to notify the Health Office of cases of pulmonary tuberculosis when accompanied by expectoration, and the proper fumigation of contaminated premises, a number of suggestions were called forth. The issuance of circulars carrying information regarding the proper disposal of sputum, and regarding general hygiene of consumptives, was favored in one form or another by nearly all. And nearly everyone advised that the city bacteriological laboratory should make free examinations for the tubercle bacillus.†

On the question of quarantining against tuberculosis, I was surprised to find the profession by no means agreed. While sixteen favored either national, state, or municipal quarantine, twenty-one were opposed to quarantine in any form. The profession appeared to be surprisingly equally divided.

Among other measures which received the support of a considerable number of correspondents were notification ordinances, fumigation ordinances, expectoration ordinances, the establishment of hospitals, colonies, or sanatoriums, and especially a campaign of education by means of circulars, the press, public lectures, instruction in the schools, and municipal nurses to visit tuberculosis premises for the purpose of teaching inmates personally the proper precautionary measures against the spread of the disease.

The Pennsylvania Society for the Prevention of Tuberculosis has distributed tens of thousands of educational tracts; New York, Boston, Chicago, Buffalo, and other cities have done the same. The German government recently distributed some millions of leaflets among its people, conveying information regarding tuberculosis.

* Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

† Such free examinations are now made by the Health Department for rich and poor alike.

SANITATION *versus* SANATORIA.

In many countries much importance has been accorded the establishment of sanatoria. But while the sanatorium is one of the most efficient means of combatting tuberculosis, it is neither the only means nor the most important in my estimation. Believing that "sanitation is more effective than sanitoria," I omit the discussion of the sanitorium idea, preferring to devote my allotted time to other measures that are easier of realization, susceptible of more general application and well worthy of serious consideration.

CLEAN CONSUMPTIVES NOT A MENACE.

Quoting Prof. Koch's words at the British Tuberculosis Convention:

A consumptive who coughs out tubercle bacilli is not necessarily a source of infection on that account, so long as he takes care that his sputum is properly removed and rendered innocuous.

And Dr. Hermann Biggs, of New York, a sanatarian of deservedly international repute, says:

If the matter coughed up be properly destroyed, a person suffering from consumption may frequently not only do his usual work without giving the disease to others, but also improve his own condition and his chances of getting well.

SPUTUM IS ONLY DANGER.

Without seeking further authority, I believe it may be safely assumed that *a consumptive is dangerous to those around him practically only through his sputum.* This being admitted, proper measures for combatting the disease suggest themselves immediately. Most of these measures are quite simple. In many of the leading cities, such as New York, Boston, San Francisco and Toledo, and, I am glad to add, Oakland, tuberculosis is a notifiable disease by law. And while it is desirable in all localities that physicians should be required to report tuberculosis patients, in many communities it would be unwise to attempt to secure such reports by any compulsory system until the majority of the physicians were in favor of such compulsory legislation. This policq was followed in New York City, where a tuberculosis notification ordinance was passed only after several years of voluntary notification, and not before the profession had become somewhat prepared for the measure. Furthermore, it would seem wise to require notification only of cases of tuberculosis of the respiratory tract, and of these cases only when accompanied by expectoration; for *practically, it is only cases of tuberculosis of the respiratory tract accompanied by expectoration that are a menace to the public health.*

A city that requires notification of tuberculosis should, if possible, also provide a bacteriologist to assist in the diagnosis, by making free examintions of sputum for the tubercle bacillus. By this means it has been found that not only are many tuberculosis cases diagnosed early, which is of immense importance to patients, but the health department incidentally learns of many cases which would otherwise escape its notice.

EXPECTORATION REGULATIONS.

In view of the importance of destroying tuberculous sputum, anti-expectoration legislation assumes considerable importance. A large number of cities of this country now have statutes prohibiting expectoration in public places, and the impartial enforcement of these laws in America, against rich and poor alike, has provoked complimentary comments from the highest European authorities. The enforcement of such laws is especially desirable during the summer season when the sputum accumulates and dries quickly, and dust fills the air. As a valuable, if not necessary, adjunct to the efficiency of such expectoration laws, the providing of a sufficient number of conveniently placed public cuspidors is earnestly recommended. Many people are obliged to spit while in public places, and since spitting on the street is but little less sanitary than spitting on the sidewalk, public cuspidors, properly supplied with some fluid, and frequently cleaned, appear to be a very efficient means of meeting the problem. Expectoration regulations should be extended so as to apply to all public conveyances, hotels, lodging houses, churches, halls, etc.

FUMIGATION.

Fumigation, usually the first measure to be applied to the tuberculosis problem, when done intelligently, using formalin solution, and *especially if conjoined with scrubbing and general renovation,* is both simple and efficacious. As a routine protective measure not alone against tuberculosis, but against all the communicable diseases, fumigation of second-hand clothes, furniture, bedding, books, etc., should certainly be required before they may be offered for sale, whether in regular stores or at rummage sales.

CLEAN FOODS.

It is unnecessary for me to speak of food inspection, as the importance of that subject has been well recognized. But it may not be amiss, especially as it is probable that the tonsil is a portal of infection, to call attention to the careless practice of exposing to the dust of the streets fruits and other foods that are commonly eaten without being cooked. If for no other reason than simple cleanliness, dealers should be required to protect such foods from dust contamination more thoroughly than is done at present.

QUARANTINE CONDEMNED.

Quarantine, isolation, placarding and kindred measures applied to tuberculosis, I mention merely to condemn. They are disapproved by such authorities as Prof. Koch, Hermann M. Biggs, S. A. Knofp, T. Mitchell Prudden, Geo. F. Shrady, Geo. H. Simmons, Geo. M. Gould, and others equally eminent. Aside from the ofttimes great difficulty of diagnosis in the early stage; aside from the impracticability of enforcing quarantine measures against the thousands of persons entering the United States or any one state, or even city; aside from the inhumane character which it assumes in separating families, relatives and friends; aside from all these objections and others, quarantine is to be condemned *because it is eminently unnecessary*. As pointed out before, a consumptive who disposes of his sputum properly in no way endangers those about him, and quarantine is no more necessary in his case than in a properly conducted case of typhoid fever. In the one case the germs are carried by the sputum, in the other by the dejecta.

ISOLATION AND PLACARDING CONDEMNED.

And so, also, in regard to isolation of consumptives and placarding their homes, these measures are onerous, repulsive and entirely unnecessary, save possibly as disciplinary measures in those special cases where the expectoration regulations are persistently violated. I believe that the public should be taught to regard consumption in its true light—as a disease that can be avoided without ostracizing consumptives; as a disease that is curable certainly in the early stages by the simplest means—and not as a monster at the sight of which they should flee.

We, ourselves, should be careful to avoid speaking of tuberculosis as a "contagious" disease. To call it "contagious" is to place it in the same class with diphtheria, scarlet fever, smallpox, etc., in which very limited contact, or even simple proximity, may result in their transmission, *which is not true of tuberculosis*. Every intelligent person, even laymen, knows that tuberculosis is not contagious in that sense. The distinction should be kept clear and definite. Tuberculosis is a communicable disease, but not a contagious disease in the ordinary understanding of that term.

MORE SUN, MORE AIR; LESS ALCOHOL.

Our people (and, I suspect, our profession) need to give more importance than they now do to efficient prophylactic measures of a broader scope than those mentioned in the preceding pages. The baneful effect of alcohol in reducing the systemic resistance to the invasion of the tubercle bacillus needs to be dwelt upon. It has been shown that the increase of mortality from tuberculosis in France is in exact proportion to the increased consumption of alcohol. If the fight against tuberculosis is to succeed, our people must have more sunlight, more fresh air, with fewer working hours and less alcohol. The reduction of the working hours effected by the labor unions is assisting, no doubt, in the reduction of the mortality from tuberculosis.

BETTER HYGIENE THE BASIS.

Our homes should not be built on small lots, but space for air and sunshine should be demanded. Rooms that get no sunshine are unfit for human habitation. It is probable that at a future date a well will be devised to lead the sunshine from the roof and distribute it among the rooms of buildings when sunny windows are impossible. I regard the recent lowering of the ceiling in our modern architecture as pernicious, and prophesy that the day will come when people will refuse houses with low ceilings. Some one said that the change simply avoided space for dead air. It may get rid of dead air, but it brings dead people instead.

Certain it is that darkness, dampness, lack of ventilation, uncleanliness, and excesses of all kinds (but especially alcoholic) are the handmaids of tuberculosis. Sunshine, fresh air, cleanliness and temperance are its arch enemies. Let this creed be once well instilled and the people will quickly work out their own salvation.

With regard to tuberculosis as in relation to most of the communicable diseases, the principal preventive measure and most rational prophylactic course is to secure and maintain a good index of resistance in each individual. Here we enter that large field of sanitation that deals with drainage, sewage, ventilation, diet, light, exercise, etc., on many points of which I have already touched.

Conceived largely, suffering and premature death are punishments for the transgression of natural law. And so tuberculosis is a ministering angel in disguise, for it tends ultimately to force better drainage, better dwellings, better modes of living, more fresh air, sunshine, cleanliness, rest and recreation. This is the final conception of the tuberculosis problem. Notification, fumigation, medication and all such measures are mere makeshifts valuable to meet the exigency; but the solution of the problem is undoubtedly to be sought within the broad lines of hygiene and sanitation.

THE CORRECTION OF DEFORMITIES FOLLOWING ANTERIOR POLIOMYELITIS BY SUBPERIOSTEAL IMPLANTATION OF TENDONS OF UNAFFECTED MUSCLES.*

By JAMES T. WATKINS, M. D., San Francisco.

Assistant Orthopedic Surgeon to the Children's Hospital, etc.

THE object of the present paper is to direct attention to a rational and efficient method of treating a group of cases which has proved intractable to other methods. Only the clinical aspects of the subject are dealt with; its purely scientific side, the experimental study of the histology of tendon-grafting and of the sub-periosteal implantation of tendons, must be considered at another time.

Permit me first to outline the pathological conditions to be considered and the treatment which has led up to our present methods.

Briefly, infantile paralysis is an acute inflammation, possibly infectious, involving certain ganglia in the anterior horns of the spinal cord; which are the motor and trophic spinal centers.

As a consequence of the inflammation, possibly of pressure due to interstitial edema, one or more groups of cells are completely absorbed; others may be partially destroyed; however, most of the affected groups recover. The muscles governed by the first set remain permanently paralyzed; in the second case they are paretic; in the third, function is restored.

Characteristic of acute anterior poliomyelitis is the disturbance of nutrition which appears almost immediately after the onset of the disease.

The limb is cold, blue, edematous, glossy, and the atrophy is altogether too great to be accounted for by mere loss of function.

The deformities secondary to acute anterior poliomyelitis result from the use of the limb in a vicious position. It must not be forgotten that improper function is not the result of deformity, but that *deformity is the result of improper function.*

The functional contraction of muscles whose antagonists have remained paralyzed, as well as their inherent elasticity, the action of gravitation and mechanical elements, such as the weight of bedclothes, are factors to be considered among the predisposing causes of deformity.

The orthopedic surgeon usually sees patients suffering from infantile paralysis after the appearance of the deformity. The problem which then presents itself is two-fold: First, the correction of secondary deformities, and second, the restitution of function. Formerly it was customary to apply portable apparatus to the limb without attempting to correct its deformity. This is the mode of treatment still practiced by a German "bandagist," Herr Hessing. The result of such treatment is to transform a partial cripple into a complete one. A great step in advance was the forcible remodelling of the member, combined with subcutaneous or open division of those ligaments, tendons, fascia and muscles which could not be stretched. Plaster of paris was applied and the patient directed to go about in it, thereby employing his own weight to remodel the distorted bones into their proper relations. Subsequently, simple sheath splints were applied and so adjusted that the weight during use of the limb constantly acted to oppose a return of the deformity. This is the treatment employed by Professor Lorenz, who lately visited this section of the country. It is excellent as far as it goes. It aims at correcting the deformity and at giving the patient a limb upon which he can get about. Its disadvantages are that apparatus cannot be wholly dispensed with; and where there is apparatus there is atrophy. In all cases the liability to the return of deformity is constant and calls for unremitting vigilance on the part of the patient and of the physician. Finally the return of function is less complete than it need be. As good a result may be obtained, in selected cases, by operative stiffening of the affected joints, "Arthrodesis." This operation finds its warmest advocates in Robert Jones of Liverpool, and John Dane of Boston. It is really a very conservative resection of the joint surfaces in which the articular cartilages are peeled off, and the two freshened ends of the bones maintained in apposition till union between them has taken place. There can be no question that in the treatment of flail joints—joints all of whose muscles are paralyzed—this operation may be employed, usually in combination with some simple apparatus, to advantage.

A further advance in the treatment of paralytic deformities was made twenty years ago by Nicoladoni when he attempted to *replace* the lost power of a paralyzed gastrocnemius by implanting into the tendo Achillis the tendons of the long and short peroneal muscles. The result was not permanent, and the operation found so little favor that, in 1897, Vulpius could find only 33 reported cases, (sixteen of which were attributed to Drobnik and four to Goldthwait.) But of late years orthopedic literature teems with reports of cases treated this way.

The accompanying scheme of the different ways in which the force of healthy muscles can be transmitted in whole or in part to a paretic or paralytic one explains itself. In each instance, the paralyzed or paretic tendon is indicated to the left of the healthy one. In the first diagram the source of power is functionally unimportant. In the second and third the source of power is func-

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

tionally important. It cannot be totally dispensed with. If one is going to do a tendon graft, the last scheme in the first and third diagrams is the rational one to employ. The technic of the operation is simple. The secondary deformity is first corrected, or over-corrected. This may require a preparatory operation under narcosis. In that event the limb is put up in plaster of paris in over-correction, and the patient encouraged to employ it functionally during two or three weeks. In this way the tissues are stretched till their elastic recoil towards deformity has disappeared. At a second operation the sheaths of the tendons are laid open by free longitudinal incisions, the fascia between their sheaths undermined by blunt dissection, and the tendon, or portion of tendon, to be implanted into the other is drawn through the new opening. There are several ways of uniting the tendons. A good method is to buttonhole the uncut tendon once, and, if possible, twice, and draw the first tendon through the loops, as shown in the fourth diagram. The

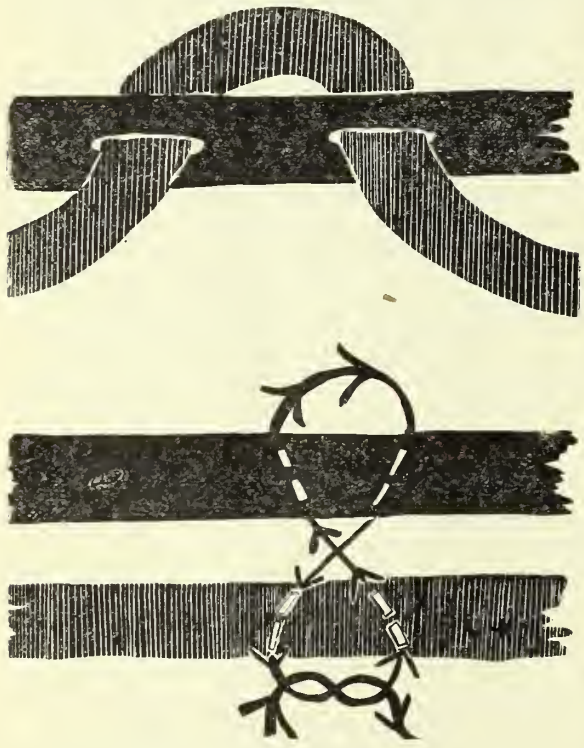


PLATE IV.

sutures are best applied at the points of emergence and entrance, indicated by the crosses. In tendon-suturing the aim is to obtain the maximum amount of coaptation with the minimum disturbance of nutrition. Sewing with the intention of an immediate pull is secondary. It is indeed questionable whether union would take place between tendons while in a state of tension.

The cross suture indicated in the fourth diagram is the one suggested by Vulpius. It is excellent. After the external incision has been closed, the wound is dressed aseptically and the limb put up in over-correction in a plaster of paris dressing. This is left intact from four to six weeks. After-treatment in the form of massage and gymnastics may or may not be indicated till the patient is discharged cured, with some supporting apparatus.

The closer examinations of many reports of operations performed by the tendon-to-tendon suture does not throw much light upon the results obtained. Oftener than not the writers confine themselves to the simple chronicling of what they call a "good result," a "satisfactory result." But what they mean by a "good result" they do not say. Whether a "good result" signifies that there is no return of the deformity or that there is a complete or almost complete restitution of function, the report does not show. It is probable that a very much smaller percentage of good results would be recorded were those cases discarded whose casual lesion was other than that of infantile paralysis, and the percentage would be still further reduced were more time allowed to elapse between the operation and the report of the case. It has been the privilege of the writer to discuss and compare the results of the leading orthopedic specialists in this country and in Europe, and, making allowances for individual optimisms, there has seemed to be a fairly universal dissatisfaction with results obtained by the older methods. The causes of failure may be divided in three groups, functional, technical and pathological. In the first group, a negative result may be due to employing too weak a muscle to do the work of a powerful one. For example, in Nicoladoni's first case he attempted to replace the calf muscles of a person sixteen years old by means of the peroneal muscles. But in computing the relative strength of the muscles of the leg, the combined strength of the peroneals is computed by Fick of Leipsic at .173 kilogrammeters while the gastrocnemius and soleus are known to be three times as strong as the sum of all the other leg muscles or more than 20 kilogrammeters. This taken with the fact that the patient had reached an age (16) when the body weight could have approximated that of an adult, may explain why the result, which at first was very good, gradually disappeared. It is true, however, that this same operation when undertaken in young children has proved successful. Again, it is still a debatable question, if we attempted to replace a muscle by one of a widely different or antagonistic function, whether the latter will perform the function of the former, except by a special effort of volition.

PLATE I.

Technical defects are errors in sewing, failure to unite the muscles so that after the removal of the plaster of paris, they will be under a sufficient tension, and so attaching the tendons that the pull of the active muscle is not exerted in the direction of its muscular contraction.

The pathological cause of failure is seen in the fact that through destruction of the trophic centers of the cord, an atrophy has resulted which is out of all proportion to the atrophy which would follow disuse alone. If a patient has suffered paralysis at, say the age of eighteen months, and no treatment has been attempted from that time until the patient is past the age of puberty, and then the tendon, atrophied both from disuse and from disease, has suddenly to perform its full function, it is reasonable to expect that, except in the simplest cases, the tendon will not withstand the strain put upon it. As a matter of fact it does not do so. It stretches between its insertion and the site of the tendon suture.

PLATE II.

PLATE III.

I would not be understood to repudiate altogether this operation, nor to deny that, in the hand, and, in less aggravated cases, in the foot, it may be successful. But, in a large proportion of cases its result must, from the nature of the pathological changes present, be transitory, and. to be successful, must necessitate one feature which the operation was devised to obviate—the wearing of apparatus.

The writer was induced by these considerations to advocate the method of periosteal, or subperiosteal, implantation. This operation was unsuccessfully attempted in 1894 by Drobnick. Lange of Munich has been more successful with it. It consists in freeing the whole or part of a healthy tendon from its insertion and attaching it to that bony point where it will obtain the best leverage, first in combating the tendency to deformity and secondly in restoring function. In the fifth diagram, a paralysis of the extensor communis digitorum is assumed, with consequent talipes equino-varus. In the figure to the right, the outer half of the tendon of the active tibialis anticus is grafted to the tendon of the paralyzed entensor communis. In the figure to the left, following the newer method, the outer half of the tendon of the tibialis anticus is attached to the external aspect of the cuboid.

The advantages of this method are two-fold: First, the employment of only healthy tendon, and second, the freedom permitted in choosing the site for the attachment of the new muscle. The completeness of the result will depend upon the degree of tension ultimately obtained for the new muscle—the tension under which it will begin to contract. An exact technic is therefore necessary. The very great majority of cases occur in the muscles of the leg so the technic of operations on these muscles will be considered.

Lange performs, almost without exception, a preliminary operation in which the deformity is overcome and the foot put up in plaster of paris in correction or over-correction. Two weeks or a month later, under strict asepsis, an incision over the length of the tendon opens the sheath from its insertion to the ligamentum arcuatum. The whole or the part of the distal end of the healthy tendon is freed from its insertion and drawn through its compartment in the ligament. The split in the tendon may be carried up to the appearance of the muscular fibres. The foot is next held in the corrected position by an assistant and that point determined where the tendon would exert the most direct pull in the sense of correcting deformity. Here an incision is made, and deep subcutaneous communication between it and the upper end of the first incision. A needle threaded with No. 8 silk is carried in a basting stitch from the distal end of the tendon up one side and down the other, never completely piercing it, both ends of the silk being left long. (See sixth diagram.) The periosteum at the site of the proposed attachment is split in the line of the external incision and freed from the bone for a distance of 2 cm. The tendon having been drawn through the subcutaneous tunnel, the long ends of the silk suture are now threaded on needles and a basting stitch employed in carrying each through a flap of periosteum, care being taken to pass the needles through it first from within out, so that, when the sutures are subsequently drawn tight and tied in the lower end of the wound, the end of the tendon will be applied to the denuded bone. (This is indicated in the seventh diagram.)

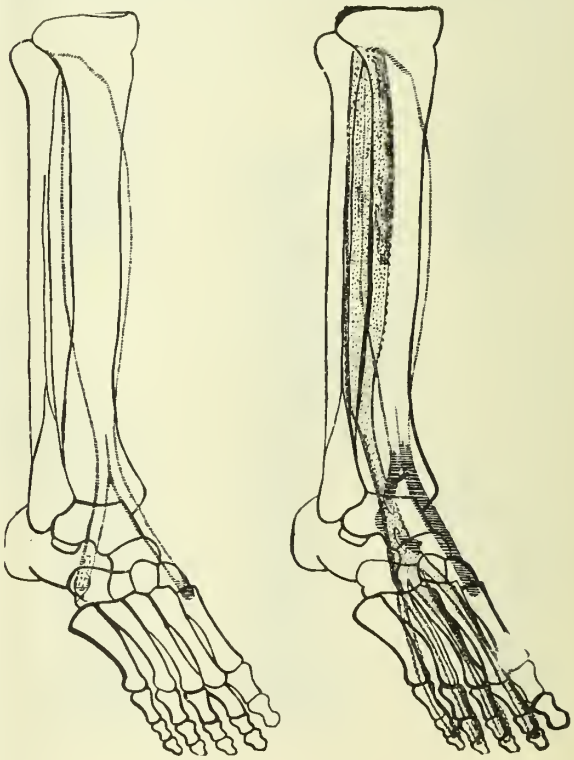


PLATE V.

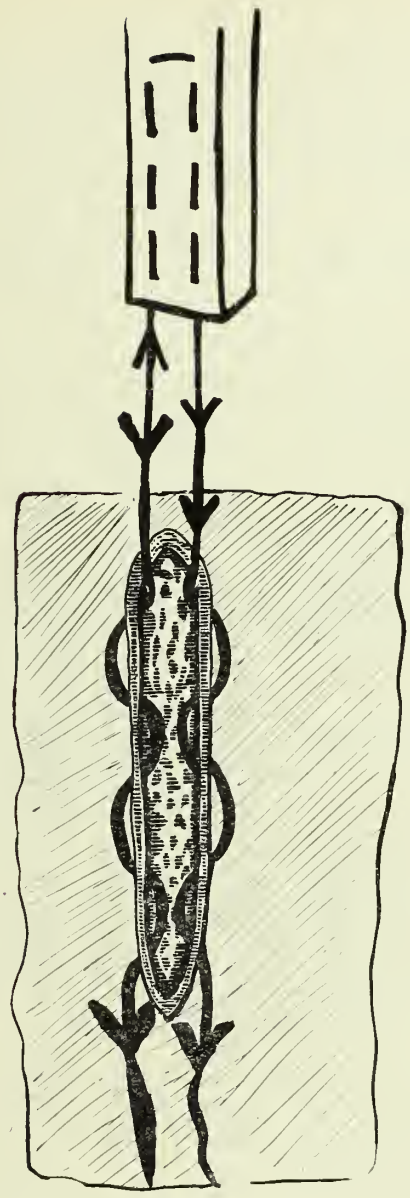


PLATE VI.

During this part of the operation and the subsequent steps, the foot is held in over-correction by the assistant. The skin wounds are closed with silk, a gauze wick being left in the upper end of the large wound, and a sublimate gauze dressing applied, then absorbent cotton and over it plaster of paris. When the plaster has set, a large fenestrum is cut out over the dorsum of the foot and the cut edges of plaster turned out. The plate of plaster which has been removed in making the fenestrum is then reapplied and fixed in place by a starch bandage. After three days the gauze wick is taken out and several days later the skin sutures. The plaster dressing is not removed for a month or six weeks.

To assure its asepsis, the silk is boiled for ten minutes in corrosive sublimate solution 1-1000, and is removed from the solution by the operator at the moment when he will use it. The greatest care is taken to prevent the tendon from twisting in its passage through the tunnel made to transmit it to its new insertion. The excellence of the final result is believed to be, within reasonable limits, proportional to the tension of the new muscles when called upon to do work, and to the directness with which the tendon passes from the muscle to the point of insertion.

When a result has held its own during nine months of functional use of a member it may safely be classed as permanent. In support of the permanence and excellence of the operation a skeleton report is added of an examination made by the writer of six of Lange's cases.

(See next page.)

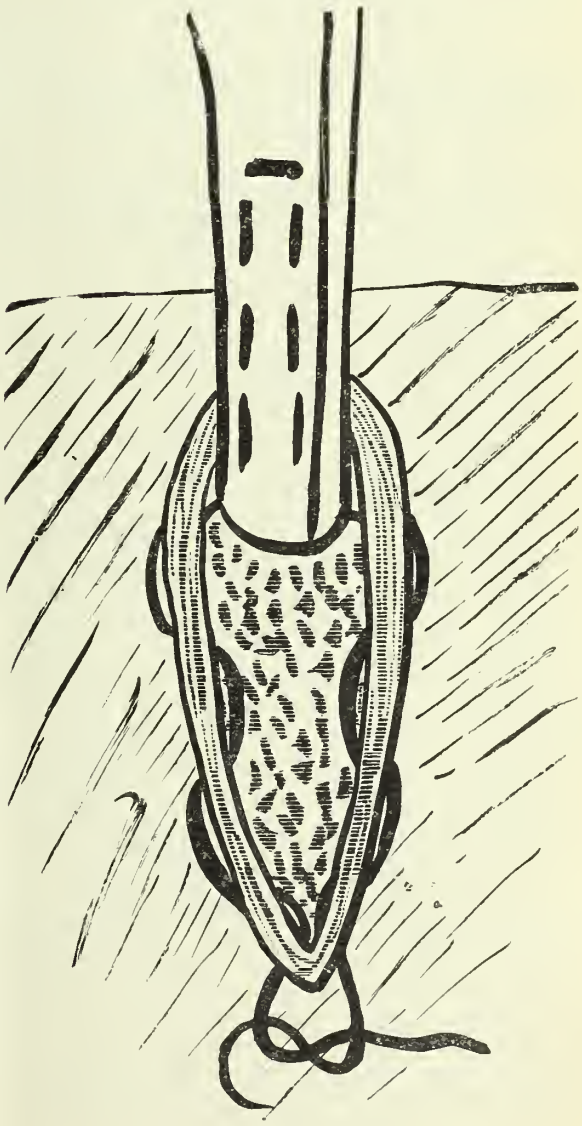


PLATE VII.

EXAMINATIONS MADE BY THE WRITER MARCH 14, 1901.

	DEFORMITY.	PARALYSIS.	OPERATION AND DATE OF SAME.	RESULT.
I. Str. boy. Aet. 8.	Pes equinus.	Tibialis anticus. Extensor of communis digitorum.	October, 1899. Peroneus longus implanted into scaphoid. Peroneus brevis in front of malleolus to cuboid.	Seventeen months after operation. Foot hangs in varus, which disappears on standing. Good flexion and extension. Walks comfortably without apparatus.
II. Frl. L. Aet. 16.	Talapes equinovalgus.	Hallucis longus. Tibialis anticus. Extensor communis digitorum.	Peroneus longus to scaphoid. Peroneus brevis to cuboid.	About eighteen months after operation. Foot hangs in varus. Volunteers the information that whereas she could walk before the operation only for a few minutes at a time, she can now walk for hours.
III. Herr. H. Aet. 23.	Pes equinus.	Tibialis anticus.	October 7, 1899. Manual correction of deformity a month earlier. Peroneus longus to scaphoid.	Seventeen months after operation. Flexion and extension of 20 to 30 degrees, estimated. Patient is delighted with result.
IV. Bulher. Aet. 8.	Talapes equinovarus.	Hallucis longus. Extensor digitorum peronei.	Outer half of tibialis anticus implanted into cuboid.	Good flexion, extension, abduction and supination. Slight voluntary motion in sense of pronation and abduction.
V. Ludwig. Aet. 15.	Talopes equinovarus.	Hallucis longus. Extensor digitorum peronei.	February 18, 1899. Manual correction of deformity one month earlier. Tibialis anticus tendon split and outer half attached to cuboid.	Two years after operation. Forty degrees of flexion and extension, abduction and supination; normal perceptible pronation and abduction against gravity.
VI. Girl. Aet. 14.	Talipes equinovarus.	Extensor longus digitorum long and short peroneal muscles.	Outer half of tibialis anticus to cuboid.	Two years after operation. Flexion, extension, abduction, supination. Distinct abduction from the indifferent position. Patient volunteered information that during the past summer she had been on mountain walks with her friends

THE CLIMATE OF SANTA BARBARA AND ITS FOOTHILL REGION.*

By C. M. RICHTER, M. D., San Francisco.

IT IS quite an easy matter to write an article on climate, or on the climate of a certain locality by enumerating the figures of the different climatic elements, and furnishing comparisons of these figures with those of other localities. However, if one undertakes to scrutinize and to explain in detail the advantages or disadvantages which certain climatic factors in a given locality exercise on people living there, one will find this to be quite another matter.

At once one is confronted with mountains of possibilities caused by combinations of different climatic elements as they present themselves from time to time on any spot of the earth. And how —this is the next question—will this or that human being react on such combinations? Any explorer in this field will soon become aware that his work must reduce itself to the most modest statements, as the reaction of a certain individual on certain combinations of climatic elements must remain, to a large extent, an unknown factor. For instance, I refer you to the importance of the humidity of the atmosphere in its relation to the animal organism.

And, speaking of this climatic factor, how can one neglect to-day the importance of atmospheric electricity? Humidity, temperature, and air pressure, as the most recent investigations indicate, seem to be indirect, or at least in some relation to the electricity of the air we breathe.

And what do we yet know about the conditions of electricity which our mucous membranes possess and present to the incoming air and to the incoming food?

Perhaps all climatic factors that we now consider as such, are only secondary in importance to this factor of electricity. There is still a vast difference between the pretensions of the climatologist and the sober facts that he can present for consideration, and if I speak of the climate of Santa Barbara to-day, it is with a full understanding of how crude any such attempt must be while so many questions still remain unsolved. Heretofore we have always considered temperature and humidity the two principal climatic elements. But, if we wish to compare the temperature of Santa Barbara with that of San Diego we must be able to prove that the method of taking the temperature in the two places admits of such comparison. But the thermometers from which the temperature is read are about 20 feet above ground at Santa Bar-

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

bara, 94 feet at San Diego, 7 feet at Pine Crest near Santa Barbara, and 74 feet at Los Angeles. 69 feet at Jacksonville, and I cannot tell how high at the Riviera.

It is most important to consider the height of the thermometer above ground as recent investigations by Seeley (*Monthly Weather Review*, Nov. '01) prove. Seeley put one minimum thermometer at the lowest point of a swale surrounded by hills, one on the hilltop about 15 feet above, and one on a wooden frame 30 feet high on the hilltop. The average of the readings of the thermometer in the free air on six clear, still nights in January was 14.5°, or 6.3° higher than the average on the hilltop, and 8.8° higher than in the swale. In a dry climate there may be a minimum as high as 40° five feet above the ground and frost on the ground below. The higher we put the thermometer above the ground where radiation is more intense, the higher will be the temperature it indicates—generally. It is clear then that a correction should be applied to the temperatures of stations where the thermometers are not at the same height above ground.

How much higher would the minimum temperatures of Santa Barbara be than those of San Diego for instance, if the thermometers were on the roof of the Potter Hotel instead of, as at present, 20 feet above ground one mile or more from the shore? Including the cold February of 1903 the absolute minimum temperature from beginning of observation, read at San Diego, is 32°, at Los Angeles 28°, at Santa Barbara 28.5°, at Pine Crest, two and a half miles north of Santa Barbara (elevation 1000 feet), 31°; at Jacksonville, Florida, 10° (1899). We may rightly assume that these minimum temperatures of San Diego, Los Angeles and Jacksonville, to be compared with those of Santa Barbara and especially of Pine Crest, should be put several degrees lower than they are given.

The absolute minimum read at Auburn (Northern California, elevation 1360 feet) is 12°, at Sacramento 19°, at San Jose 18°. For mean of the absolute minimum see table 2.

These temperatures of Santa Barbara and Pine Crest, if the proper corrections were applied, would also be several degrees higher. For mean minimum temperatures, which represent the mean of the minimum temperatures of every day of a month, see table 3.

These figures exhibit strikingly the superiority of the winter climate of the foothill region of Santa Barbara above that of any other station named herein as far as minimum temperatures are concerned. Not less apparent will this be from the figures for the cold February, 1903. See table 4.

Undoubtedly it is the minimum temperature that is of paramount interest to the climate seeker. He wishes to know where he will find comparatively the least cold weather during the winter, and no doubt the foothill region near Santa Barbara has, in our list, the highest minimum temperatures during the winter months. For the invalid who wishes to select a health resort, the two greatest bugaboos are the frost on the ground and the fog in the air around him. He little considers the fact that the ground by radiation, may cool considerable more than the air he is breathing, and that the formation of frost and often of fog, will depend on the temperature and relative humidity of the air next to the ground.

It will be interesting to look at the table (Weiss) where "s" stands for the degree of saturation of the air with aqueous vapor, and "t" for that temperature of the air from which, by cooling, the freezing of water is still possible. See table 5.

If, therefore, the relative humidity of the air on a winter morning were only 15%, the temperature of the air could be 45°, and still there could be frost on the ground. This explains how wrong it often is to judge from the frost on the ground of the temperature of the air we breathe. During February, 1903, Los Angeles had heavy frost on ten mornings, San Diego on two, and Pine Crest light frost only on six mornings. But it would be necessary to give the figures of moisture on such mornings for a proper understanding.

The temperature we feel, the "sensible" temperature, depends principally on the conditions of wind, humidity, and temperature combined. Cold days, with comparative absence of wind, are easily borne. Fog alone does not cool our skin sensibly, but a sufficient wind velocity will make us look at fog as a real menace. Equally, we measure the heat with our skin by the amount of moisture and the wind velocity of the air. Hot days, with small relative humidity and a light wind, do not affect us very unpleasantly. The lower the relative humidity the greater is the possibility of perspiring, and the greater is the relief from the intensity of the heat. A temperature of 90° or above, rare as it is at Pine Crest, is generally accompanied by a wet bulb temperature of only 60° to 70°, and loses in this proportion the character of oppressive heat.

For the "cold" days I have already given some figures. "Hot" days we may call days with a temperature of 90° or above. I counted for the entire period from August 1, 1897, to May 1, 1902, as "hot" days, 5 at San Diego, 17 at Santa Barbara, 67 at Pine Crest, 79 at Los Angeles. But we shall soon see that San Diego pays for this excellence by rather high velocity of wind,

and that at Pine Crest the unwelcome burden is lessened by small relative humidity.

The absolute maximum temperatures are shown in table 6.

The mean of absolute maximums is shown in table 7.

The mean maximum temperatures are shown in table 8. This table shows clearly the absence of great summer heat at Santa Barbara, Pine Crest and San Diego, and also their advantages during the winter. But this is not fully understandable without the figures for humidity and velocity of wind.

The mean relative humidity is shown in table 9.

Wind, average velocity in miles per hour, table 10.

For seasons we have table 11.

The excellence of the climate of Santa Barbara and its foothill region is clearly demonstrated by these figures, but from table 12 the great dryness of the air found at Phoenix for instance, will appeal to every practitioner as a *pium desideratum*, not found at Santa Barbara. But let us take for instance, this year 1898 for comparisons. Table 12.

For the invalid we demand a climate which will give him the greatest comparative possibility to remain outdoors, summer or winter, night or day, with comfort, in a relatively pure air. All climatic elements, principally temperature, humidity and wind, must combine in such a manner that this comfort is attainable. An extreme dryness of the air, as Phoenix represents, is combined in 1898 with 153 days of the year with a temperature above 90°, and 19 days with a temperature below 32°. Santa Barbara had in that year 5 days above 90° and none below 32°. The mean minimum for Phoenix (winter) is not quite 37° and for Pine Crest over 50°. This must appeal to our judgment. An invalid, who is able to sleep outdoors summer and winter in the same locality with comfort, as he can at or near Santa Barbara, will and must give preference to the latter. He will find in the Santa Barbara foothills the warmest winter nights he can find in California and on the mainland of the United States—the most southern part of Florida, near Key West, excepted. He will be favored here, at the same time, by a minimum of wind movement and low relative humidity (55% in winter).

And still there is fog to be found here on many a morning. The number of days with fog includes at San Francisco only days with a "dense" fog at morning and evening observation. At San Diego and Los Angeles probably the same routine in judging the fog day is followed. Los Angeles has an annual average of 57 foggy days and San Diego of 14 days. Continuous records for Santa Barbara are missing, but Pine Crest, overlooking Santa Barbara, had only 5 foggy days during 1898.

When fog prevails on land the temperature near the ground is always lower than at some distance above ground, and this is a causative factor of fog. The greater cooling of the air nearest the ground by the greater radiation from the soil helps to form fog. This kind of fog seldom forms in the valley of Santa Barbara, and hardly ever in its foothill region. The fog observed at Santa Barbara is almost invariably drifting in from the ocean where currents of a different temperature, and the difference of the temperature above the water and above the nearest coast help to give conditions for frequent fog. Such fog contains dust particles only to a very small degree and will be little irritating to those who live in it.

Land fog with its dust particles must have a different effect on our mucous membranes. The ocean fog is common on the Pacific Coast in summer time and rather rare in winter time. At Pine Crest (a five years' average) one may expect fog on three to four mornings for one hour or longer every winter and spring month, and every second or third day every summer and fall month. Before 9 A. M., during summer and fall, the fog is generally dispelled. As there are only about thirty rainy days in the year at Pine Crest, one may well be pleased to have this light fog on twenty mornings of the six winter and spring months instead of rainy days, and to have the summer fog for the morning hours instead of heavy showers.

For Southern California the existence of fog means just what it may be proud of, namely, a cool summer temperature, sufficiently cool to make the existence of fog possible. Of course the fog removes a fraction of available sunshine for the day. But let us look at the figures for clear days. (Table 13.)

We find Santa Barbara ahead of the others in clear days and still with a summer not many degrees warmer than that of San Francisco. Santa Barbara has an average of three days with a temperature of 80° or above in July, six in August, five in September, four in October, three in November; but only on three days in the year the temperature may reach 90° or above

The air at Santa Barbara must be remarkably pure as the wind direction determines an average of an incoming ocean air current for the entire year. Of course the character of a sea and land breeze is as noticeable here as at San Diego. We find at Santa Barbara a day breeze from the ocean, and from evening to morning an oceanward breeze from the Santa Ynez mountains, principally a northerly air current. The entire wind movement of Santa Barbara, compared to that of San Diego, is very small. Still, the nearness of the mountains, 4000 feet high, having their crest in an air line only four miles

from shore makes "Foehnwind" possible, and on a few days of the year, for one night, or, perhaps, for one day, a disagreeable sandstorm may result. This may also happen when a strong wind from the east brings the sand of the Mojave desert over the town.

But the entire movement of the air will only once in two years amount to 300—350 miles in 24 hours, equal to 10—15 miles an hour, as San Francisco may have as an average for every summer day.

If we consider then once more the comparative purity of the air and absence of wind, the great amount of sunshine, the small relative humidity, the very high winter and the comfortably low summer temperatures, we must admit that among all known health resorts Santa Barbara and its foothill region deserves the palm. Nowhere else in the United States, in Europe, or elsewhere may the invalid find as great a chance as here to remain outdoors with comfort, in constant contact with pure air, summer and winter, night and day.

MEAN RELATIVE HUMIDITY. (Since observations began)

[9]	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Boston	72%	71%	68%	66%	71%	72%	71%	75%	77%	75%	75%	71%	72%
Denver	53	55	51	50	52	46	49	44	44	45	47	50	49
Fresno	82	72	68	57	52	40	33	35	43	56	66	82	57
Jacksonville	80	79	76	73	74	79	80	81	83	81	82	82	79
Los Angeles	67	69	72	73	76	75	76	76	73	75	66	63	72
Phoenix	52	47	38	32	27	23	36	43	39	41	44	41	39
Red Bluff	80	69	65	58	54	42	33	35	42	52	65	80	48
St. Louis	74	74	71	65	68	68	66	67	69	66	70	74	69
San Diego	71	71	74	74	77	78	80	80	80	77	70	68	75
San Francisco	80	78	77	78	79	80	84	86	81	79	77	80	80
Santa Barbara	69	69	70	71	73	74	76	75	74	72	67	64	71
Pine Crest	59	59	61	68	70	70	69	69	63	64	57	48	63
Cannes	71	74	73	...	...	...	...	...	...	...	71	72	...
Algiers	73	72	69	...	...	...	...	...	...	...	68	73	...
Cairo	70	69	62	...	..	...	...	...	...	...	76	70	...
Davos	84	81	77	...	...	...	...	...	...	...	81	82	...

[5] Table (Weiss) referring to the possibility of frost on ground, when temperature is relatively high.
s=degree of saturation of the air with aqueous vapor, per cent.
t=that temperature of the air from which by cooling the freezing of water is still possible.

s=	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
t=	32°	33°	34°	35°	37°	38°	40°	42°	44°	46°	49°

ABSOLUTE AND MEAN TEMPERATURES.

(Since observations began)	[1] Absolute Minimum Temperature	[6] Absolute Maximum Temperature	[3] Mean Minimum Temperature					[8] Mean Maximum Temperature							
			Nov.	Dec.	Jan.	Feb.	Mar.	June	July	Aug.	Sept.	Oct.	Dec.	Jan.	Feb.
Boston	—13°	102°	34°	24°	19°	20°	27°	76°	81°	78°	71°	60°	39°	35°	36°
Chicago	—23	103	32	23	16	19	27	74	80	78	72	60	36	31	33
Denver	—29	105	26	20	16	19	26	81	86	85	77	65	45	42	44
Fresno	20	114	43	38	37	40	43	91	100	98	89	78	54	53	61
Jacksonville	10	104	54	48	47	49	53	89	91	90	86	78	65	64	67
Los Angeles	28	109	48	46	44	45	47	78	83	84	82	76	67	64	66
New York	—6	100	38	28	24	24	30	78	82	80	74	63	41	37	38
Phoenix	12	119	44	37	35	38	43	102	105	102	98	86	69	65	70
Red Bluff	18	114	44	38	37	40	44	88	97	95	87	76	54	53	58
St. Louis	—22	107	36	29	24	26	35	84	88	86	79	68	44	40	43
San Diego	32	101	51	48	46	47	49	70	73	75	74	70	65	62	62
San Francisco	29	100	51	47	45	47	48	66	65	65	68	66	56	55	58
Santa Barbara	28.5	107	49	46	44	45	47	73	74	75	75	72	66	63	65
Pine Crest	31	101	55	52	49	50	50	74	79	79	78	73	67	62	66
Auburn	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...
San Jose	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Florence	12	...	...	...	...	...	...	..	...	...	...	....	...	...	...
Rome	21	104	...	...	...	...	...	...	...	...	...	...	...	...	...
Naples	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Davos	—21	84	...	...	...	...	...	...	...	...	...	...	...	...	...

[12]

1898

	Mean Maximum Temperature	Mean Minimum Temperature	Absolute Maximum Temperature	Absolute Minimum Temperature	Relative Humidity 8 A. M.	Relative Humidity 8 P. M.	Wind—Average Miles Per Hour	DAYS Clear	DAYS Fair	DAYS Cloudy	DAYS Rainy	Maximum Temperature Above 90°—Days	Minimum Temperature Below 32°—Days	Thunder Storms	Days with Fog, A. M. and P. M.
Boston	58.0°	43.5°	99°	0°	76°	73°	10.9	130	91	144	130	9	87	16	12
New York	59.5	46.4	99	5	78	72	12.5	109	124	132	150	5	70	30	34
Denver	62.6	35.5	98	—20	60	36	7.9	150	162	53	86	29	165	46	4
Fresno	77.0	49.1	114	24	69	30	5.3	262	52	51	31	109	31	0	26
Jacksonville	78.6	61.0	98	24	86	79	7.6	147	167	51	135	68	5	43	4
Los Angeles	74.2	51.2	99	31	75	61	1.3	160	172	33	25	28	1	0	20
Phoenix	83.6	55.8	111	23	18	24	4.3	259	71	35	33	153	19	19	3
Red Bluff	74.5	50.5	112	24	62	33	6.2	243	68	54	47	86	19	6	5
St. Louis	65.2	48.9	96	3	80	64	9.9	133	106	126	133	34	69	54	12
San Diego	66.6	54.5	91	36	77	70	5.7	294	26	48	40	1	0	1	28
San Francisco	60.4	48.8	89	36	86	71	10.8	152	148	65	50	0	0	0	25
Santa Barbara	69.3	50.6	95	34	*67.5		4.1	256	56	53	17	5	0	0	5
Pine Crest	71.4	53.5	101	34	*61.0		4.2	278	41	46	16	23	0	0	1

*Mean of Year.

Average velocity of wind in miles per hour (since observations began).

[10]	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Boston	12	13	14	12	...	...	...	...	...	...	...	...
San Francisco	7	8	9	10	11	13	13	12	10	8	7	7
Sacramento	7	8	8	8	8	8	8	7	6	6	6	7
Santa Barbara	3	4	5	4	4	5	4	4	4	3	3	4
Pine Crest	5	4	5	4	4	3	2	3	3	4	4	5
San Diego	5	5	5	6	6	6	5	5	5	5	5	5

[13]

(Since observation began)	Clear days	Fair	Cloudy	Rainy
Sacramento	232	80	53	57
San Francisco	149	137	79	60
Los Angeles	165	153	47	39
San Diego	178	116	71	39
Santa Barbara	241	56	68	32
Pine Crest	237	77	51	28

[11]

	Winter	Spring	Summer	Fall	
Santa Barbara	67%	71	75%	71	Relative humidity.
	3.6	4.5	4.2	3.4	Wind, miles per hour.
Pine Crest	55	66	69	61	Relative humidity.
	4.5	4.4	2.6	3.7	Wind, miles per hour.
San Diego	74	78	80	78	Relative humidity.
	5.0	6.0	6.0	5.0	Wind, miles per hour.
Los Angeles	67	73	73	69	Relative humidity only.
Cannes	73	...	...	...	" " "
Cairo	70	...	...	...	" " "
Davos	80	...	...	...	" " "
Algiers	75	72	72	72	" " "
Hawaiian Islands	74	74	69	71	" " "

[4]

FEBRUARY, 1903
CALIFORNIA
TEMPERATURES

	Palermo	Riverside	Los Angeles	San Diego	Santa Barbara	Pine Crest
Mean Maximum	57.1	65.3	63.0	60.1	62.1	60.2
Mean Minimum	30.4	31.6	41.0	44.4	40.1	44.2
Highest Minimum	42.0	42.0	53.0	55.0	49.0	62.0
Highest Maximum	72.0	82.0	78.0	75.0	76.0	74.0
No. of days with Minimum between						
20—29.9	14	10	0	0	0	0
30—39.9	13	15	11	7	11	10
40—49.9	1	3	15	17	17	10
50—59.9	0	0	2	4	0	7

[2] (Since observations began)
Mean of absolute minimum temperature.

Auburn	25	Nice	31
San Jose	28	Cannes	34
San Diego	38	Montreux	15
Santa Barbara	34	Venice	21
Pine Crest	35	Naples	29

[7] (Since observations began)
Mean of absolute maximum temperature.

Auburn	103	Montreux	83
San Jose	96	Paris	92
San Diego	89	Berlin	91
Santa Barbara	95	New York	93
Pine Crest	99	Colorado Springs	93
Nice	88		

Well Earned Promotion—General Wood's accomplishment in ridding Havana of yellow fever for the first time in centuries, was one of the greatest achievements in public affairs that the world has ever seen. Because it was done by a mere doctor, because it only saved lives by preventing disease, and, further, because General Wood did not assist in the slaughter of a few more Spaniards, the press is inclined to sneer at his advancement. History will say that General Wood accomplished one of the greatest things that has ever been done, in demonstrating to the world that a dread disease can be banished from its favorite climate when modern sanitary methods are properly and thoroughly applied. It is a sad commentary upon the point of view of our newspaper editors when they utterly ignore a great work of this humane character, and charge up to official favoritism the promotion so well earned by General Wood. It is most unfortunate that the newspapers should encourage the idea that the military man who slays the most of the enemy, or permits the most of his own command to die from preventable disease, is more to be honored than the man who, without any powder, saves the lives of thousands of human beings by preventing the invasion of a fatal disease.—*Cleveland Medical Journal.*

HEADACHE AS A SYMPTOM.*

By H. BERT. ELLIS, M. D., Los Angeles.

Professor of Ophthalmology, College of Medicine, University of Southern California.

THERE is probably no single symptom to which humanity is subject more common than headache, and none which incapacitates one for mental work so completely; and it would indeed be a most interesting symposium, "Headache as a Symptom," presented by the neurogologist the gynecologist, the specialist on the digestive organs and the ophthalmologist.

From such sources, where careful observation had been exercised, a classification of headaches could be made which would be of exceedingly great value to the general practitioner as well as to the specialist. Then the oculist would not think it possible to relieve every headache by the use of lenses or the treatment of the eyes, and the general practitioner would the more frequently refer his headache patients to some fellow physician, but with greater discrimination than is now generally used.

Headache is a symptom occurring in the course of a great variety of diseases. Organic cerebral diseases, congestion and anemia of the brain, functional nervous disorders, toxemic conditions, disturbances in the digestive tract, uterine and ovarian troubles.

The character of the pain varies greatly; it may be superficial or deep, constant or paroxysmal, general or local, dull or heavy, sharp or throbbing.

Prof. J. C. Wilson, of Philadelphia, gives the following classification for the etiological causes of headache:

1. Reflex irritations—a, the eye; b, the nose; c, the teeth; d, the ear; e, the reproductive organs.
2. Toxemia—a, infectious diseases; b, autointoxication; c, drugs—opium, alcohol, quinine; d, poisons—lead, tobacco, tea, coffee.
3. Disturbances of circulation—a, congestions; b, anemia; c, arterial changes.
4. Neuroses—a, epilepsy; b, hysteria; c, neurasthenia.
5. Organic diseases—a, syphilis; b, meningitis, etc. (1.)

Probably the great majority of headaches have a multiple origin; at the same time it is also most probable that the correction of errors of refraction and the treatment of muscular unbalance, when either exist, will give much relief to a greater number and variety of headaches of not strictly ocular origin than any other single mechanical or medical proceeding; but this fact would not justify one in treating headache from typhoid fever by glasses and, on the other hand, it would be too absurd for any physician to repeatedly give phenacetin, antipyrin, acetanilid, or the "headache tablets" of the trade to relieve headaches which are manifestly of ocular origin, and it is of these that I wish to write.

It is altogether probable that ophthalmologists sometimes magnify the effects produced by errors of refraction, but it is certainly true that such refractive defects are responsible for a large proportion of headaches and for other reflex disturbances. Very many neurasthenics who come across the continent in search of health have errors of refraction and frequently these are the largest factors in their breakdowns.

In opening the discussion upon headaches and their treatment at the 67th annual meeting of the British Medical Association, Lauder Brunton *(British Medical Journal,* Nov. 4, 1899) said:

> In all cases of headache the first thing to do is to examine the teeth and see if they are decayed; next the eyes and see if there be any abnormality in them. The most common cause of headache is certainly some abnormality in the eyes.

He considers two factors to be active in the production of headache: First, a general condition with disordered or imperfect nutrition; second, a local condition. The former condition renders the person liable to pain, the latter determines the location of the pain, and this determining factor is most often decayed teeth or defective eyes. (2.)

Pain in back of neck, described as pulling, drawing, or a tense feeling radiating down the back and to the shoulder, and frequently more prominent on one side than the other, is present in about 80% of all cases of refractive errors. It is almost pathagnomonic of eye-strain, and it rarely fails to disappear with the correction of the visual error. (3.) Personally, I have found this symptom a continuation downward of the occipital headaches and nearly always preceded or accompanied by a frontal or temporal headache.

I believe that the eye is a factoral element in fully 60% of all headaches, and that it is the chief factor in about 80% of all headaches of the fronto-temporal variety. How do we recognize eye headaches? There are several factors to be taken into consideration: First, the occupation of the individual; second, the time of day or night when the headache makes its appearance; third, the location of the discomfort; and, fourth, the character of the pain. In reference to the locality, the order of frequency of ocular headaches appears to be, first, frontal; second, deep orbital; third, temporal; fourth, occipital; fifth, sick headaches. The occipital seldom appears by itself when a manifestation of eye-strain. Headaches of ocular origin are more frequently dull and heavy, rather than very sharp and, when not due to a diseased condition, are found in those people who make considerable use of the muscles of accommodation and convergence.

* Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

When you find a patient complaining of headaches after riding on the cars, after going to a place of amusement such as the theatre or opera, or even church, or after shopping, you will be tolerably safe in suspecting the eyes, and in sending such an one to an oculist.

When headaches occur as a result of eye defects, they nearly always make their appearance within a few hours after the eyes have been taxed, but sometimes they are postponed until the next day, especially when the eyes have been used to a considerable extent at night.

The headache which most resembles ocular headache is that arising from intranasal irritation or disease such as hyperemia or pyemia of the frontal or maxillary sinuses; but with these diseases, however, there is usually more or less nasal discharge which would lead one to be suspicious of the origin, while with ocular headaches one is very likely to find more or less itching, smarting and burning of the lids, with angular irritation of the conjunctiva, photophobia and muscæ-volitantes.

In patients subject to sick headaches, it is always wise to look for eye symptoms, for when found (and they are in about 60% of those afflicted) the correction of the defects leads to an amelioration and frequently a cure.

There are some headaches which are so infrequently the result of eye errors that they should never be sent to the oculist until all other means for their relief have been tried without benefit. The neurotic or nervous headache may or may not be accompanied by refractive errors, but when it is the correction seldom gives permanent relief.

Headaches which occur in the night time are certainly not of ocular origin, and one may feel justified in diagnosing some extra-ocular cause, even where other eye symptoms be present, especially when it is not possible to use the eyes without discomfort, if the headache in question wakes the patient up after he has retired and the lights have been extinguished. (4.)

Small errors of astigmatism are the most common causes of ocular headaches, hyperopia and even myopia are not uncommon elements in these most uncomfortable symptoms, and heterophoria may at times be the only element in their production.

Mr. W. A. Braily (Guy's Hospital) read a paper on "Ocular Headaches," in which he said it is a general law that the greater the error of refraction the less the effect on the head, because a great defect leads to abandonment of the effort of accommodation, the patient seeing as best he can without it. Uncorrected presbyopia is a rare cause of headache, except just at its commencement. It might cause strain and burning but not headache. Similarly great inequality of refraction gives comparatively little trouble, the worse eye being unused. (5.)

The mechanism of extra-cranial headaches is not particularly difficult to explain, but the modification of function as manifested in intracranial pains, with which this paper deals, has always puzzled pathologists and, in fact, has not yet been satisfactorily described.

Why do we have headache as the result of eye-strain? Lucien Howe presents an explanation of how eye-strain causes headache—by the term "eye-strain" he means the pain experienced by some persons when reading, sewing or doing other near work. This pain may be referred to the eye itself, the forehead, or some part of the head, or possibly even to the shoulders. The proposition which he seeks to prove is that these pains are due directly to some muscular contraction.

According to the theory of Helmholz, the ligament of Zinn is tense when the eye is at rest and relaxes more and more in proportion to the degree of accommodation. A better explanation has been offered recently by Professor Tscherning. This observer contends that the act of accommodation is not altogether passive, as Helmholtz believed, and that on looking at a near point the ciliary muscle is contracted. This draws the edges of the lense, bends the central portion of the anterior surface further forward and makes the lense more convex. On this theory, that near vision is entirely an active muscular effort, it is not difficult to explain the pain in the eyes which sometimes constitutes the first feature of ocular headaches. Moreover, a certain amount of accommodation always means a certain degree of convergence of the visual axes which implies tension of the internal recti, and also, to a certain extent, of the superior and inferior recti.

The accessory muscles of the forehead and head are called into action when any special effort is required to maintain accommodation, and it is the tension of these accessory muscles which gives rise to the headache. The occipito-frontalis is an important muscle in this respect, and both the anterior and posterior portions are subjected to strain in connection with a special effort to maintain accommodation. This explains the frontal and occipital headaches. (6.)

Casey Wood, referring to supra-orbital headaches due to ciliary strain, traces the reflex arc back to the ocular motor nucleus and adjacent trigeminus nucleus from which it is reflected to the terminations of the fifth nerve. (7.)

Headache is common in cases of nerve exhaustion proceeding from almost any cause, and particularly from prolonged mental effort or worry. It may be a result of anemia, and is then

commonly frontal; or may be due to congestive states of the brain resulting from heart disease, asthma and other forms of dyspnea. In these latter cases it is throbbing in character, and as in nearly every other variety of headache is increased by stooping, coughing or any other condition which tends to increase the congestion.

Toxic headaches are frontal and deep seated, and sometimes very severe. Secondary syphilitic headache is neuralgic and limited to the temples.

Headaches resulting from stomachic or hepatic derangements are usually occipital or vertical, but may be frontal or general. In neurasthenic patients the general conditions are such that headaches may result from errors of refraction which in health would have caused no trouble. Such a headache, once established, may in itself further disturb the nervous equilibrium of the patient. In this class of cases the good effects of properly adjusted glasses, by relieving the patient of a disagreeable symptom, may be very great. This "ocular headache" must not be confused with the "neurasthenic headache," which is possibly toxic in origin and continues after every source of peripheral irritation has been removed. Neurasthenic headache is very intractable to treatment by drugs, and a suitable climatic condition is of much value in bringing about a cure. In tuberculous patients ocular headaches may have a bad influence upon the general condition. The pain and discomfort bring about a depressed mental condition and there follows loss of appetite and indisposition to go out of doors, with resulting bad effect upon the general health. A routine examination of the eyes of all neurasthenic patients is to be recommended, and in cases of chronic disease where ocular defects may be the cause of headache and other disturbances which have an unfavorable influence, the possibility of learning something by the examination of the eyes which may be of value, should not be forgotten. (2.)

Dr. F. Windscheid, of Leipsic, in an article on headaches, states that in no ailment must the causal indication be so closely adhered to as in headache.

As Dr. Collins states, the treatment of headache accompanying the infectious diseases can best be remedied by combatting the cause. The treatment of those arising from drugs consists in the discontinuance of those preparations taken therapeutically—mineral or vegetable—proper care when required by occupation to come in contact with the metals, such as lead, mercury, etc., and the promotion of the elimination of any poison which may be in the system. But, aside from these cases where the treatment is etiological, there are a variety of idiopathic forms which require special treatment. (8.)

REFERENCES.

1. *Journal American Medical Association*, August 25th, 1900
2. Editorial, *Journal American Medical Association*, March 15th, 1902.
3. Elmer G. Starr, M. D., *Journal A. M. A.*, July, 1900, P. 17.
4. Casey A. Wood, *International Clinics*, October, 1898.
5. *Journal A. M. A.*, August 25th, 1900.
6. Lucian Howe, *Journal A. M. A.*, February 14th, 1903.
7. *Journal A. M. A.*, August 11th, 1900. Pages 385–386.
8. *Journal A. M. A.*, August 25th, 1900.

COMMUNICATION.

Some Further Remarks on Dr. Sherman's Paper Published in August Journal.

To the California State Journal of Medicine:—In your last issue, I see that Dr. Tait's discussion of Dr. Sherman's paper, "An Unusual Infection Causing Acute Suppurative Appendicitis," was published, whereas my discussion of the same was not. I should like it, therefore, if you would publish my remarks, as perhaps answering some of Dr. Tait's contentions.

Dr. Tait's idea that the specimens were exposed to the air for an hour before taking the cultures, is certainly erroneous. The appendix, and later the gauze drain, were brought to our laboratory wrapped in many layers of sterile gauze and surrounded with gutta percha tissue. Cultures were made immediately. Fifty colonies of Friedlander's bacillis developed in the first culture tube. Certainly if we should suspect contamination, it is rather remarkable that we should not have had a bacterium more ordinarily found from contamination. Also, it is still more remarkable that the second culture made from the same case should also have shown 40 colonies of Friedlander's bacillis.

That Dr. Sherman's conclusions should have been "most probably entirely negatived," I think is contradicted pretty strongly by the fact that the patient's blood gave an agglutination reaction with the bacillis of Friedlander in dilution, of one to forty. This is certainly good evidence that the patient was suffering from an infection with Friedlander's bacillis.

I think that more attention has been given to the anerobic bacteria than Dr. Tait realizes; and I also think that the reason that this work has not been reported, is because of the negative results obtained.

It is true that Dr. Veillon has found a number of anerobic bacteria in such lesions as otitis media, appendicitis, etc., but it remains for him to prove conclusively that these organisms are pathogenic, and that they cause these lesions; and are not simply there as contamination, so to speak, since the sites from which these bacteria have been isolated are, almost all, parts of the body in direct communication with the external air. It also remains for other observers to confirm his work.

As far as the bearing of Dr. Veillon's work on Dr. Sherman's case is concerned, Dr. Veillon has found his anerobic bacteria in the gangrenous cases, and Dr. Sherman's case certainly does not belong to that group.

Of the few anerobic bacteria whose pathogenicity has been established, I do not think there is any reasonable evidence that any of them may have been factors in the case.

In conclusion, I should like to say that the methods pursued in this case are those pursued in the vast majority of similar cases, both here and abroad, and it remains for some one to prove that other methods are necessary before such methods will be adopted.

MARY HALTON.

REPORTS OF MEDICAL SOCIETY MEETINGS.

Humboldt County.

The regular meeting of the Humboldt County Medical Society was held in Eureka, Tuesday evening, July 14, Dr. Felt presiding.

The committee appointed to draft a fee bill brought in a partial report and were given time in which to complete their work.

Dr. G. N. Drysdale reported a case of amputation at the hip joint by Wyette's method, for tubercular osteomyelitis. The disease, beginning at the knee, had extended up to the head of the femur; acetabulum was not involved; recovery was uneventful and patient was out on crutches in four weeks; wound completely healed.

Dr. McKibbon reported a case of puerperal septisemia occurring eleven days after labor.

Dr. J. J. Gaynor read a paper on "The Use of Ergot During Labor." He said that ergot had practically no place in the management of a case of labor. In the first stage he never used it; in the second stage he never used it, with the single exception of the birth of the second child in twin births. He considered the third stage better completed without ergot. Its use was liable to retard or prevent the natural delivery of the placenta and render manual extraction necessary. His custom was to use an aseptic preparation of ergot hypodermatically, after the completion of the third stage, not so much as a prophylactic against hemorrhage, but because it lessened after-pains.

Dr. H. G. Gross read a paper on "The Management of Compound Fractures." He said that the lumbering industry in this county gave us an unusual number of these injuries. The shingle saws, cogwheels and cable spools were responsible for most of the compound fractures of the fingers and hands. He believed in the conservative treatment of these injuries. Where a man would rather lose a finger than lose time, and made the choice himself, it was well enough to amputate; but amputation was seldom necessary when there was not complete death of the part. He used sutures when needed, being careful not to close the wound too tightly; splints when necessary, and a moist dressing when there was contusion, giving the patient some mild antiseptic solution with which to keep the dressing moist. In fractures of the toes, rest was the most important part of the treatment. Fractures of the bones of the leg were common and hard to handle. He did not believe in wiring if he could avoid it. In the majority of cases, free incision, thorough cleansing, removal of loose fragments, bringing the broken ends in apposition, a heavy dressing, completed with plaster of paris, gave the best results. Cellulites called for energetic treatment, with free incisions, but he did not give up the idea of union unless amputation were necessary to save life. Compound fractures of the thigh were apt to be severe and hard to manage. Posterior splints, slight traction, and if suppuration occurred, perfect drainage would do the work for the majority of cases. He cited a case occurring in his practice in which there was extensive laceration of the thigh, a mass six inches long and extending around three-fifths of the circumference of the thigh sloughed out. The anterior crural nerves lay on the bed of the cavity; the femoral artery hung like a cable, unsupported for six inches; the ends of the bone were exposed at the bottom of the cavity, and the leg hung by the fascia lata. The man had a hard struggle, but to-day had a leg, stiff at the knee, but a good deal better than a wooden one. It took nearly five years to get this result, but it taught him what conservative surgery would accomplish. Compound fractures of the arm called for much the same treatment as those of the leg, except that in the upper arm he found the ideal place for wiring. He considered that in no class of cases were the results of modern surgery more brilliant than in compound fractures.

Discussion of the papers was taken part in by Drs. Felt, Wallace, McLaren, Gross, Loofbourrow, Perrott, Sinclair, McKibbon, Gaynor and Drysdale.

The regular meeting of Humboldt County Medical Society was held at Eureka, Tuesday evening, August 11, Dr. R. Felt presiding. At the July meeting it was resolved to hold meetings of the society in towns outside of Eureka twice a year, and in accordance with this resolution it was decided to hold the September meeting in Ferndale.

Interesting clinical cases were reported by Drs. Wallace, H. G. Gross, Gaynor and Drysdale. An interesting case was reported by Dr. Felt, of a woman who called to see him, saying she was pregnant about three months and thought she would miscarry, having had pains for several days and considerable flowing. On examination it was found that abortion was inevitable, and on attempting to dilate the cervix several hemorrhages followed. The vagina was packed temporarily and further investigation revealed a rent in the posterior lip of cervix, at vaginal junction, large enough to admit three fingers. Later inquiry elicited the fact that the woman had tried to produce an abortion herself, using a bougie, and instead of introducing it into the os, had punctured the posterior lip of cervix. Infection followed, with sloughing, and the hemorrhage was due to sloughing of circular artery. The uterus was emptied, and recovery followed.

Paper was read by Dr. E. J. Hill, county health officer, on "Preventive Medicine," dealing particularly with the smallpox epidemic in this county. He saw the recent outbreak of smallpox amongst the Indians here, and demonstrated the value of vaccination as a preventive measure. The cases amongst the Indians who had not been vaccinated at all, being of a much more severe form. He spoke also of the prejudice that exists among the people here against vaccination, and the danger that may arise from it.

In the discussion which followed, many instances were cited of cases in which the value of vaccination was clearly demonstrated.

G. N. DRYSDALE, Secretary.

San Diego County.

At the regular meeting of the San Diego County Medical Society, August 7, President Fred Baker 'n the chair, the membership committee reported favorably on the application of Dr. J. M. Steade to become a member, and he was duly elected.

Dr. Magee read a paper on "Puerperal Infection," based on a recent case of puerperal pyemia. He prefaced his report by stating that in the present day of antisepsis, cases of puerperal infection were considered due to some neglect on the part of the attendants in carrying out those regulations as to cleanliness, known and practised by all careful surgeons, and affirmed that under the most exact methods of antisepsis an occasional case of infection would arise. Also the converse of this was true; that many cases with the most unsanitary surroundings,

with no regard, whatever, for asepsis, passed an uneventful puerpereum.

The doctor spoke of the three phases of infection, sapremia, septicemia and pyemia, giving their differential diagnostic phases. He then reported a case from his own practice, of a primapara with tedious labor and instrumental delivery in which the patient did well until the seventh day, when she was suddenly seized with a violent chill, followed by a rapid rise in temperature to 104.05° F., succeeded by drenching perspiration and temperature sinking to subnormal, with recurring paroxysms of the same character at irregular intervals. After the second chill the doctor gave 10 cc. antistreptococcus serum every six hours until 40 cc. had been administered, the result being an arrest of the paroxysms, and a continuous improvement and a complete recovery.

Drs. Burnham, Doig, Gochenaur and others discussed the paper, dwelling particularly upon the apparent good results from the use of the serum in the case. THOS. L. MAGEE, Secretary.

San Francisco County.

The regular monthly meeting of the San Francisco County Medical Society met in the parlors of the Y. M. C. A. on Tuesday evening, August 11, President Kengla presiding.

Dr. A. B. Grosse read a paper on the "Treatment of Lupus Erythematosus and Report of Case" (to be published in the JOURNAL).

The reading of a paper, "An Interesting Case of Brain Surgery," by Dr. George Goodfellow, was postponed on account of the author's absence from the city.

Dr. R. D. Cohn read his paper on "Acute Radiating Parenchymatous Keratitis—Demonstration of Case," which he had prepared and read before the State Society at its April meeting at Santa Barbara.

The committee appointed to prepare a memorial minute on the death of Dr. Matthew Gardner, reported the following:

"San Francisco, August 11, 1903.

"*To San Francisco County Medical Society*—Your committee on memoriam to the late Dr. Matthew Gardner respectfully reports as follows:

"With bowed heads and sad hearts, we deplore his sudden and untimely demise.

"Though the inception of his professional career was as an obscure and comparatively unknown rural physician, he soon rose to eminence and distinction, and even before he had attained the full bloom of middle age he became the chief surgeon of the Hospital Association of the Southern Pacific Company.

"The responsibilities of such a position require tact, energy, medical ability and surgical skill, together with executive capacity. Nature seemed to have endowed Dr. Gardner with all these qualities.

"When we see a person ambitious, industrious, able, frank, firm, self-reliant and confident, we cannot refrain from admiring him; but there was one phase of Dr. Gardner's character that particularly commends him to the warmest esteem, and that was his indulgent consideration for, and kindly forbearance with, and toward young members of his profession. When meeting an older man who has gained professional character and distinction, the youthful medico is, perforce, timid and awed, and frequently loses that nerve so necessary to success; but with Dr. Gardner he was immediately made to feel at ease.

"He had ever present before him his own early struggles. Experience had taught him that with youth the world is skeptical of ability, and with those ideas uppermost in mind, he never failed to encourage and reassure the young man, and always consulted and advised with and deferred to his opinion and judgment, with as much alacrity and consideration as he would with older and presumably more learned doctors.

"Viewed as a whole, his life and career can be exemplified in the words, 'Well done, thou good and faithful servant.'

"When we are called to answer the last summons which shall bid us take our place in the silent halls of eternity, let us hope that when the reckoning shall be made, we will be found, like him, in the ranks of faithful service, and then, as may be said of him, so will it be said of us, that our lives were good; that in our departing moments we may be sustained and soothed by a consciousness that in passing unto death we have fulfilled our allotted portion and duty in life.

"W. B. COFFEY, Chairman."

Amendment proposed at the last meeting, to the Constitution and By-Laws, permitting residents of adjoining counties in which there are no county societies, to apply for membership in this society, was adopted.

An invitation was received from the University of California, to the members to attend the dedicatory exercises on Thursday, August 20, of the new physiological laboratory.

San Francisco Society of Eye, Ear, Nose and Throat Surgeons.

The monthly meeting of the San Francisco Society of Eye, Ear, Nose and Throat Surgeons was held on April 16th, 1903, President Deane in the chair.

Dr. Cohn—"Tuberculosis of the Larynx." Family history gave no tuberculosis. Two months ago the trouble began with hoarseness. There is now a circumscribed ulceration of the right cord. I have shown this as a typical case in which we have the hope of curing the patient. Shall use a 50 or 60 per cent solution of lactic acid after curetting.

Dr. Payne—I have had but two cases of tuberculosis of the larynx in which I have used it. Neither was primary. In one case I curetted thoroughly and used 25 per cent lactic acid. The reaction was very severe and general condition grew worse. In the second one I followed the same plan, using 50 per cent lactic acid solution, with temporary benefit. I do not feel encouraged to repeat this treatment and do not think I will resort to it again, especially where the process is not primary.

Dr. Deane—I appreciate what has been said in regard to curettement and the use of lactic acid, but I wish to mention also the use of creosote. I look back on my most successful cases and they are those on whom I have used creosote internally, beginning with small doses and run up to 8 to 18 drops three times a day; also locally by inhalation of creosote vapor heated to about 300° F.

Dr. Cohn—As I implied before, there are three stages of tuberculosis of the larynx. The first is the early stage where the curettement and lactic acid may be successful, and before the ulcers have become diffuse. Orthoform is of value in the second stage when you cannot hope to cure your patient. All you can do is keep the ulcers clean and secondary infection away. In the third stage the patient will have to have the throat cocained or morphined. I think that we should always try to affect a radical cure, and the only time for a radical cure is in the beginning. If the ulcer has formed the curette should be used thoroughly, and then rub with lactic acid, using a 50 to 80 per cent solution.

Dr. Merritt showed a case of subacetate of lead deposited in the cornea of both eyes. About five years ago the patient was given a solution of subacetate of lead to drop in his eyes, as they were sore. The result of the treatment was a permanent deposit in the cornea of both eyes, which has remained ever since. The epithelium lies over it, leaving the surface smooth.

Dr. Martin—If it is a deposit of lead there are means of getting it out, but if it is an old infiltration it cannot be removed.

Dr. Franklin presented some new instruments for inspection. (1), a binocular electric head mirror (Clares) which can be readily focused; (2), Hajek's chisels for the septum; (3), Schulmeister's electric saw handles and saws; (4), a sliding scissors for removal of the turbinates.

The President—The subject for this evening's discussion is the evisceration of the globe. The subject can be divided into four divisions: First, the indications for the operation; second, the operative technique, and in this there is always something new as, for instance, whether the eye is simply left with a clot of blood in its interior, or the advantages of inserting a foreign substance, as a gold, silver, silver wire, or glass globe, sponge or paraffin; the method of keeping the sceral wound gapping, etc.; third, the after treatment, and much has been said as to the severe reaction following evisceration; fourth, the final results. Is the foreign substance retained? Is the eye painful? The chances of sympathetic ophthalmia, the cosmetic effects, etc.? None of us has had experience in all these lines, and that is why I bring up the subject, so that all may profit by the experience of others. I believe it to be the operation of the future in selected cases.

Dr. Payne—As regards the indications for the Mule's operation, I can speak from experience of ten or twelve cases, in which I have been very much pleased with the result. Of course it is simply the amputation of the anterior segment of the eye at the limbus, evisceration of the sclera, and the insertion of the glass ball. It is indicated wherever there is no infection or malignant disease within the globe, and may be used in recent penetration injuries where enucleation is done to prevent sympathetic trouble. In old cases, however, I will not resort to it, but up to this time I have used no other material than the vitrified glass ball for insertion into the sclera. The selection of the size of the ball is important. It should fit into the scleral cavity without any tension and still fill the cavity. Slitting the sclera a little at the interior and exterior canthus will allow one to coaptate the edges of the wound the better. As a rule, there is a great reaction after the operation. The lids swell, conjunctiva very edematous, and there is considerable pain for several days. Ice applied does not seem to prevent this. I used it in my first two cases, and although they came out favorably, of course, it was after a great deal of trouble and pain. To prevent this I now make a wall of cotton over the orbit, filling it in over the lids, so as to make a snug compress over the whole orbital opening, and then put on a snug flannel bandage. The more evenly this pressure is adjusted, the less the reaction, pain and swelling. Occasionally the patient requires a hypo of one-eighth or one-quarter of morphin the first few hours after the operation, but further than this I have had no trouble and the results have been excellent.

Dr. Deane—Dr. Payne's remarks have certainly been interesting and instructive. Would like to ask Dr. Payne if he has had any experience with the injection of paraffin. Could you bring some of your cases to one of our meetings?

Dr. Payne—In answer to the question as to the use of paraffin, I have had no experience with it, but I can understand how it might be very satisfactory to fill in the orbital cavity or the space behind the conjunctiva in an ordinary enucleation. The glass ball has been so satisfactory with me that I hesitate to use any other material; however, I may try the paraffin to fill up the sclera in the near future.

Santa Clara County.

A stated meeting of the Santa Clara County Medical Society was held on Wednesday, 19th inst.

The principal business was the consideration of the report of the committee appointed at the July meeting to investigate the causes leading to the recent suit to have that portion of the medical law relating to election of members of State Board of Medical Examiners by the three State Societies, declared unconstitutional. The report is based on sworn evidence submitted to the committee, and was discussed at length. The action of the instigators of the suit met with unanimous and unqualified condemnation.

Relative to the subject, the following resolution was unanimously adopted:

"*Resolved*, That this Society concurs in the report of its committee, and that a copy thereof be sent to the CALIFORNIA STATE JOURNAL OF MEDICINE for publication, as a public expression of the sentiment of the Society in this matter."

San Jose, Cal., August 19, 1903.

To the President and Members of the Santa Clara County Medical Society:—After a careful investigation of those matters submitted to it, relative to the suit begun to oust the Board of Medical Examiners of the State of California, your Committee appointed at the July meeting to inquire into the causes leading to this action, if any there be, beg leave to report its findings as follows:

First. The original medical law of California was approved by the Governor and went into effect April 3d, 1876. It remained in force twenty-five years, or until the present law became effective, August 1st, 1901. The original law provided for the election of three State Boards of Medical Examiners by the three State Medical Societies, to wit: Regular, Homeopathic and Eclectic. The functions and duties of these boards were both judicial and ministerial. Judicial, as having power to inquire into the knowledge and capability possessed by non-graduates who might apply for license to practice; ministerial, in being compelled by the law to accept and indorse diplomas from applicants for license, no matter whether obtained in due course of study, or otherwise, so long as the college granting the diploma was listed by its representative State Board. The new law consolidated the three State Boards into one, composed of representatives from the Regular, Homeopathic and Eclectic State Medical Societies, and made an examination by the State Board cumpulsory for all graduates applying for license.

Second. The medical profession of the United States had for a long time demanded a higher standard of medical education. The countries of Europe refused to give the same standing to graduates of American colleges and universities that they did to those of their own. In fact, graduates from American medical institutions were prohibited from practicing their profession in Europe without first taking specified courses in its schools, while alien product was freely admitted to our shores. This condition of affairs, in a great measure, was due to the multiplicity of medical colleges in the United States, some of which were of the highest standard, many of mediocrity, while still others of the lowest; yet all chartered under the laws of the several states, with authority to confer the degree of "Doctor of Medicine," and issue diplomas therefor. California, with commendable pride, desiring to be with the advance in college requirements and education, took measures to remedy the defects in the old law which had retarded, if not absolutely prevented, any uplifting of professional standard in its own state. As a result, the present law was enacted, and the illiterate and unlearned cease to have a right to practice medicine by reason of holding a diploma; a certificate from the State Board of Medical Examiners being required, to enter upon the practice of medicine and surgery.

Third. The present law was passed by the Legislature of 1901, and went into effect without the then Governor's approval. It received the support of every ethical member of the profession and the three State Medical Societies. Notwithstanding this, certain parties who had con-

stituted themselves proprietors and trustees of a medical college in San Francisco, sought its defeat by personal attendance upon the Legislature during its consideration of the bill, fearing the disastrous consequences to their college by loss of students on account of the knowledge and skill required of the latter under the new law. The political influence of the president of that college with the Governor induced that executive to withhold his approval of the bill. The results dreaded by these opponents were afterward realized in the rejection, by the State Board, of seventy-four per cent of the graduates of that college who appeared for examination and were found to be incompetent. Chagrined at the failure of its graduates, the proprietors and trustees of that college, instead of improving its methods of instruction, correcting its irregularities, enforcing discipline and compelling study, endeavored to secure a repeal of that portion of the law which gave to the State Medical Societies the power to elect the members composing the State Board of Medical Examiners. For this purpose they secured the introduction of that infamous measure known as "Assembly Bill No. 129." Failing in this, several other bills were introduced as trailers, in hopes of securing the passage of one or another, whereby State examinations would be abolished, in whole or in part, and that the members of the State Board of Medical Examiners would be appointed by the Governor. It was expected that through the influence of the politicians in the Board of Trustees of the college referred to, and their political allies, some future Governor might be induced to appoint one or more members of the State Board whose pliability in the commercial interests of the college could be depended upon. Being again foiled in its schemes to dishonor the medical profession of California, the Board of Trustees of that college, through its representative at the State Medical Society convention, held in Santa Barbara in April last, attempted by bully and bluster to compel the Society to discredit and repudiate its Board of Medical Examiners. It is well known how this effort to outrage decency met with withering rebuke in that convention.

Fourth. It also appears that Dr. Winslow Anderson, now President of the College of Physicians and Surgeons of San Francisco, was a member of the State Board of Medical Examiners for the term of 1889-90. He was elected to that position in precisely the same manner as were the members of the present board, the legality of which is now assailed by his college. It is only after the failure of so many of his graduates in State examinations that it has been left to the acumen of his associate, the Dean, to discover that examining boards so elected have no legal existence.

Fifth. The suit now in court to oust the Board of Medical Examiners, is the expiring effort of the College of Physicians and Surgeons as now conducted. It seeks to destroy every safeguard which the people have a right to demand under medical legislation. Its first and only consideration is the selfish one of financial gain. While the plaintiff in the action is Dr. D. A. Hodghead, the fact that he is Dean of the college of which Dr. Winslow Anderson is president, has its own significance.

Sixth. These investigations have led your Committee to inquire into the conditions surrounding the College of Physicians and Surgeons of San Francisco. From evidence submitted, it appears that this institution was organized in the year 1896, as a purely medical college. Since that time it has been transformed into an omnibus concern, so that its graduates can receive almost anything from a medical diploma to a certificate in embalming a corpse. It is incorporated under an act relating to "colleges and seminaries of learning." It is the general opinion of those familiar with this statute that it is extremely vicious, inasmuch as it delegates arbitrary powers and permits abuses which the people of this State never intended should be possessed by any corporation. It provides that there shall not be more than fifteen trustees, nor less than five. The college, for reasons of its own, is contented with the lesser number. Under its charter the trustees re-elect themselves from year to year, perpetuating and constituting themselves sole owners and proprietors, while posing before the public simply as trustees. Neither the faculty, alumni, nor any other person, not even the Governor himself, nor any other officer of the State, can have any voice in the selection of trustees, nor a legal right to inquire into its conduct.

When first organized, and for three years thereafter, the college was controlled by its faculty, and the Board of Trustees were the executive branch. During this time its affairs were conducted in a creditable manner, and its students honestly instructed. In knowledge and practice they compared favorably with those of similar institutions. In fact, some of them have received high honors. But over this came a change. Preliminary education of matriculants was disregarded, the college increased in number of students and revenue. Prospective income, together with the notoriety of having a larger student body, was too tempting to be resisted. The trustees proposed to hold night classes, so that a large number of dentists and veterinaries could attend and receive the degree of "Doctor of Medicine." To their credit, this was promptly vetoed by the faculty, some of whom afterward suffered for their temerity in opposing such a scheme to add to the coffers of the college. Some time after this, notices were sent out soliciting undertakers and others to take a course in embalming. Students were excused from attendance and work, one being given credit for full ninety days spent in the Legislature, a part of which time he was lobbying against the passage of the present medical law. He was graduated in regular course with the other members of his class. A Japanese was graduated in 1900 who could not speak, read or write English, his final examination being conducted through the medium of an interpreter. Members of the faculty protested in open meeting against admission to advanced standing of students from other colleges without examination by them in the subjects of their respective chairs, but where overruled by the trustees, the Dean telling the professors that if they did "not like it they could get out of the college." Fearing the faculty might reject students whom the trustees desired to graduate, the professors and teachers were directed by a written and arbitrary order of the Board of Trustees, of date of May 20th, 1901, to turn over to it all examination papers as soon as completed, with the professor's markings thereon for "its final inspection and action." This practice still continues in that college. It should here be stated that this Board of Trustees consists of five members, three doctors of medicine and two dentists, who thus pass upon the qualifications of all students without regard to their standing with their professors and teachers.

Faculty meetings were abolished by the Board of Trustees in July, 1901, since which time no meeting of professors and teachers has been permitted to be held, nor have they been allowed any voice in passing or rejecting candidates for graduation. Professors who have been identified with the organization of the college, objected to this abolishment of their right, privileges, and to other flagrant abuses of power by the Board of Trustees. For their remonstrance all had their interests, labors, and sacrifices confiscated to the "College," and some were turned out of doors. Others, not wishing to be participants in the dishonorable practice of the new governing body, have resigned from the school, so that there is not one member of the original faculty of over fifty professors and instructors remaining in that college, except the three doctors and two dentists who compose its "Trustees."

Your Committee, therefore, find that the general reputation of the College of Physicians and Surgeons, as now conducted, is extremely savory in all its departments. There seems to be no law of the State to prevent the evils and abuses enumerated.

Under its charter its Board of Trustees can legally confer the degrees of M. D., D. D. S. and Ph. G. on any person, without regard to competency, skill or attendance. It is amenable to no law for doing so. It knows it and profits by it.

Reviewing this statement, your Committee would ask: "Is it any surprise that graduates of that college failed in far greater proportion than others, in their examination by the State Medical Board?" Is it not a greater surprise that any of its graduates succeeded in passing? Evidence shows the State examinations to be impartial and honest. Every examination paper is on file and open to inspection. The personality of candidates, and schools from which they came, being unknown to the examiners, bias or prejudice was impossible. Students from other institutions answered questions correctly to which exceptions were taken by rejected candidates, backed by the President and Dean of the College of Physicians and Surgeons. Hence the query arises, why have not its students received up-to-date instruction?

From the foregoing, it is not difficult to discover and comprehend the animus of the plaintiff in his action in court to oust the Board of Medical Examiners.

In their desperation, he and his associates have endeavored to falsify the etiology and diagnosis of the disease, by a resort to civil courts, rather than to work a cure of the malady by fumigation of their own household.

F. H. PATERSON,
J. F. BURNS,
LINCOLN COTHRAN,
Committee.

On the evening of Sunday, August 2, the wife of Dr. P. M. Lusson died suddenly, having been a sufferer for a number of years from organic heart trouble. The severe earthquake shock on that date so startled her that the effect proved fatal. Mrs. Lusson held a prominent position in San Jose, where Dr. Lusson is one of the most eminent physicians,

and an honored member of the county medical society.

Mrs. Lusson came from a fine Southern family, was a member of the Daughters of the American Revolution and other patriotic orders. She was active in church and all charitable work, a member of the Ladies' Needlework Guild of America, and other societies.

J. LAMBERT ASAY,
Secretary.

STATE BOARD OF MEDICAL EXAMINERS.

July and August Examinations.

In July the State Board of Medical Examiners held an examination in San Francisco and Los Angeles, simultaneously; in August an examination by the Board was held in San Francisco. The following table gives a summary of these examinations: "F" indicates that the candidate failed; "C" that he was conditioned in some one or more subjects, though generally the condition was in pathology; where nothing is indicated, the candidate has passed. A more careful analysis of the data here given will be published at some future date.

San Francisco, July 7th, 8th, and 9th.

College.	Date Graduation.	Percentage.	
Cooper Medical College	1903	85 7/9	.....
" " "	1903	86 2/3	.....
" " "	1903	84	.....
" " "	1903	81 8/9	.....
" " "	1903	79 5/9	.....
" " "	1902	84 2/9	.....
" " "	1902	91 1/3	.....
" " "	1903	80 1/3	.....
" " "	1903	81 7/9	.....
" " "	1903	82 5/9	.....
" " "	1903	80 1/9	.....
" " "	1902	82 8/9	.....
" " "	1903	77 7/9	.....
" " "	1903	84 1/9	.....
" " "	1903	86 2/3	.....
" " "	1903	85 1/9	.....
" " "	1903	85 1/9	.....
College of Physicians and Surgeons	1902	78 4/9	.....
" " "	1902	76 2/3	C.
" " "	1902	84 2/9	.....
" " "	1902	82 7/9	.....
" " "	1902	70 1/3	F.
" " "	1903	83 1/3	.....
" " "	1902	84 4/9	.....
University of California	1902	78 1/9	.....
" " "	1903	84 7/9	.....
" " "	1903	83 1/9	.....
" " "	1903	81 1/3	.....
" " "	1902	84 4/9	.....

Los Angeles, July 7th, 8th, and 9th.

College.	Date Graduation.	Percentage.	
University of Southern California	1903	88 2/3	.....
" " " "	1903	80 4/9	.....
" " " "	1903	84 5/9	.....
" " " "	1903	79 7/9	.....
" " " "	1903	79 2/3	.....
" " " "	1903	89 1/9	.....
" " " "	1903	79 8/9	.....
" " " "	1903	79 5/9	.....
" " " "	1903	79 4/9	.....
" " " "	1903	75 1/9	.....
" " " "	1903	81 7/9	.....
" " " "	1903	82 2/3	.....
" " " "	1903	79 8/9	.....
" " " "	1903	84 2/3	.....
" " " "	1903	78 1/9	.....

Los Angeles, July 7th, 8th, and 9th.

College.	Date Graduation.	Percentage.	
University of Southern California	1903	83 4/9	.....
" " " "	1903	84 1/3	.....
" " " "	1903	79 2/3	.....
" " " "	1903	83	.....

MISCELLANEOUS.

(San Francisco)

University Basle, Switzerland	1902	73 1/3	F.
California Medical College	1903	80 1/3	C.
Rush Medical College, Chicago	1881	71 5/9	F.
California Medical College	1903	74	F.
Loral University, Quebec	1901	69 2/3	F.
Apothecaries Hall, Ireland	1899	75 1/3	C.
Johns Hopkins University, Md	1903	94 2/9	.....
University of Minnesota	1902	80 7/9	.....
Tufts College, Massachusetts	1901	71 2/9	F.

(Los Angeles)

University of Illinois	1901	73 4/9	F.
Harvard University, Massachusetts	1901	87 1/9	.....
Medical School of Maine	1892	77 1/9	C.
Tulane University, Lousiana	1899	72 2/9	F.
College of Physicians and Surg., Ill.	1902	75 1/3	.....
Columbia University, New York	1889	83 1/3	.....
Columbia College, New York	1900	88 7/9	.....
University Vienna, Austria	1891	74	F.
Western Reserve University, Ohio	1900	83 2/3	.....
Washington University, Missouri	1900	79 2/3	.....
Chicago Homœopathic Coll., Ill	1892	65 2/9	F.
Bellevue Hospital College	1889	44 7/9	F.
Medical College of South Carolina	1884	80 1/3	.....
Kentucky School of Medicine, Ky.	1885	79 7/9	.....
Jefferson Medical College, Pa	1875	75 2/9	.....
Saginaw Valley Med. Coll., Mich	1901	77 3/9	.....
University of Colorado	1897	79 8/9	.....
Detroit Medical College, Michigan	1897	61 2/3	F.
Bowdoin Medical College, Maine	1901	71 2/3	F.
University of Louisville, Kentucky	1875	77 4/9	C.
Barnes Medical College, Missouri	1897	80 7/9	.....
Chicago Medical College, Illinois	1869	60 8/9	F.
Hahn Medical College, Illinois	1802	.....	†
" " " "	1884	72	†
" " " "	1903	83 5/9	.....
" " " "	1903	80 7/9	.....
" " " "	1903	76 7/9	C.
" Hospital " "	1891	73 5/9	F.
John A. Creighton Med. Col., Omaha	1900	78 5/9	.....
University of Niagara, N. Y	1898	77 8/9	.....
Baltimore Medical School, Md	1902	82 8/9	.....
State University of Iowa	1883	70 5/9	F.
University of Buffalo, N. Y	1899	80 7/9	.....
" Louisville, Ky	1892	72 8/9	F.
" City of New York	1886	71 7/9	F.
Hahn Hospital College, S. F	1901	71 1/3	F.
Northwestern University, Ill	1902	87 1/3	.....
" " "	1902	84 1/3	.....
Rush Medical College, Chicago	1869	79 1/9	.....
" " " "	1893	83 1/9	.....
" " " "	1894	66	F.*
" " " "	1897	73 8/9	F.
" " " "	1903	84 5/9	.....
University of Michigan	1864	69 1/3	F.
" "	1890	71 7/9	F.
" "	1868	80 5/9	.....
" Pennsylvania	1884	74 1/9	F.
" "	1900	85 5/9	.....
" "	1891	75 1/3	.....

† Previously conditioned. * Took one examination only.

San Francisco, August 4th, 5th, and 6th.

College.	Date Graduation.	Percentage.	
Cooper Medical College	1902	77 2/3	C.
" " "	1902	79	.....
" " "	1903	80 4/9	C.
" " "	1903	79 7/9	.....
" " "	1903	83 2/9	.....
" " "	1903	80 8/9	.....
" " "	1903	75	.....
" " "	1903	76 4/9	.....
" " "	1903	83 4/9	.....
" " "	1903	75 1/9	.....
" " "	1903	77 2/9	.....
" " "	1903	81 7/9	.....
" " "	1903	72 2/9	F.
" " "	1903	80 7/9	.....
" " "	1903	79 1/3	C
College of Physicians and Surgeons	1903	74 1/9	F.
" " "	1903	79 4/9	C.
" " "	1903	74 1/9	F.
" " "	1903	81 7/9	.....
" " "	1903	85 1/9	C.
" " "	1903	84 7/9	.....
" " "	1903	89 2/9	.....
" " "	1903	75 5/9	.....
" " "	1903	87 4/9	.....
" " "	1903	78 4/9	.....
" " "	1903	73 2/3	F.
" " "	1903	75	.....
" " "	1890	75	.....
" " "	1902	75 4/9	.....
University of California	1903	87 8/9	.....
" " "	1903	72 4/9	F.
" " "	1903	77 7/9	.....
" " "	1903	79	.....
" " "	1903	76 5/9	C.
" " "	1903	80	.....
" " "	1903	86 4/9	.....
" " "	1903	83 5/9	.....
" " "	1903	77 2/3	.....
" " "	1902	78 2/9	.....

MISCELLANEOUS.

Bowdoin Medical College, Maine	1893	75	.....
Berlin University, Germany	1901	76 1/3	.....
University of Louisville, Ky	1887	53 1/3	F.
Pulte Medical College, Ohio	1903	75 1/9	.....
Univ. of Georgetown, Wash., D. C.	1902	77 2/9	.....
Yale University, Connecticut	1898	81 5/9	.....
Johns Hopkins University, Md	1900	91	.....
Saginaw Valley Med. Col., Mich	1901	66 2/9	F.
University of Michigan	1882	61 1/9	F.
McGill Medical College, Ontario	1875	73 1/9	F.
New York Medical College, N. Y.	1896	66 1/9	F.
College of Phys. and Surg., Illinois	1902	72 2/9	F.
Bellevue Hospital College, N. Y.	1903	80 5/9	.....
New York Homœo. Med. Col	1903	76 1/9	C.
Vanderbilt University, Tennessee	1903	70 1/9	F.

Deaths.

Dr. Charles Brooks Brigham, of San Francisco, died on August 24th, at his residence, 2202 Broadway, after illness of six weeks, having been stricken with paralysis at Lake Tahoe. Dr. Brigham was born in Boston in 1845, and graduated from Harvard, and after service in French medical corps, came to San Francisco in 1873. He was a member of the San Francisco County Medical Society.

PERSONAL MENTION.

Dr. Thomas E. Taggart, formerly of Bakersfield, now a resident of Oakland, has opened an office in San Francisco.

Dr. Philip Mills Jones has returned from an extended sojourn in the East.

The paper on "Care of the Health of University Girls," by Dr. Mary E. B. Ritter, which was printed in the August JOURNAL, also appeared in the *Western Journal of Education* as per resolution passed at Santa Barbara.

The Lane Course of lectures at Cooper College, August 24-28, were delivered this year by Dr. Oscar H. Allis, of Philadelphia, the general subject being "Fractures and Dislocations."

Dr. Victor C. Vaughan, of Ann Arbor, has recently passed through California on his way to attend the meeting of the Washington State Medical Society, held at Spokane, September 1, 2 and 3. Dr. Vaughan's excellent work in the domain of sanitary science, and his original work on ptomaines and leukomaines, is too well known to need comment. He spent several days in Los Angeles, where he was entertained by our President, Dr. H. Bert. Ellis, and visited Santa Barbara, San Jose, Stanford University and the Lick Observatory on his way north.

Dr. Chas. E. Turner has been elected secretary of the Board of Health of Vallejo, which position carries with it that of Health Officer.

Dr. Walter B. Coffey, president; Dr. M. Morrison and Dr. McKenzie, vice-presidents; Dr. James T. Dunn, secretary, and Dr. F. K. Ainsworth, treasurer, have been elected the officers of the newly organized Railway Surgeons Association of the Pacific Coast. The Association adjourned to meet in San Francisco next year.

Capacity for Enjoyment—Medical men are like other men in their capacity for enjoyment, in their willingness to be entertained or amused, and are second to none in possession of a wholesome good-fellowship which takes pleasure in the company of confrères.—*Brooklyn Med. Journal.*

Abolish Unsanitary Conditions.—The data brought together by Sedgwick and Winslow certainly seem to warrant the conclusion that seasonal prevalence of typhoid fever is dependent largely on the influences of temperature on the growth and persistence of the typhoid bacillus. Their study constitutes a valuable addition to our knowledge of typhoid fever. The conclusions emphasize the urgent necessity in cities to "clean up" and to abolish all unsanitary conditions in crowded tenement districts so as to limit as much as possible the chances for typhoid bacilli surviving in our environment. These measures are, of course, only of secondary importance compared with the *sine qua non* from freedom from typhoidal diseases, namely, uninfected water.—*Journal A. M. A.*

Early Operation—Would that every physician and surgeon were persuaded that it is better to remove a dozen benign tumors than to let a malignant one get beyond the time for hopeful results through surgical intervention. We have no right to ignore the fact that early surgical treatment can never be replaced by extensive operations, and that in many instances the advanced forms of the disease which are usually brought to surgeons are evidence of careless diagnosis or inexcusable procrastination on the part of a medical man who should have insisted, with all the firmness at his command, upon immediate recourse to operative measures.—*International Journal of Surgery.*

DEPARTMENT OF MATERIA MEDICA, THERAPEUTICS AND PHARMACY.

Believing that there should be some more satisfactory channel of communication between the physician and the pharmacist, whose aims and whose work are so closely allied, and whose first and greatest duty is to the public, the JOURNAL has established this department. It will be conducted on the same lines as the other departments of the JOURNAL, and the effort to attain and retain a high ethical standard will be the same. The fact is being recognized more and more every day that there is a profession of pharmacy as well as a business of pharmacy, and it is the former which we especially desire to cultivate and aid. There is much information that is quite as interesting to the pharmacist as to the physician, and *vice versa*.

Both physicians and pharmacists are constantly in need of unprejudiced information relative to *materia medica* products, and so far as it is in our power we shall try to supply such information.

The JOURNAL will be very glad to have physicians and pharmacists write to us asking enlightenment on such questions as come to their attention relative to matters in the newer *materia medica*, chemicals, pharmaceuticals, etc., and, in fact, any matters of interest or doubt. Sometimes we may not feel free to publish the information desired, and sometimes we shall not be in possession of the information sought; but we shall try to get it.

Often the physician, through ignorance of things pharmaceutical, does the pharmacist great injustice; and often the pharmacist is unjust to the physician through ignorance of the physician's mental attitude or necessities. If we can, we want very much to help in smoothing out some of these tangles, and make the relations between physician and pharmacist more nearly professional and friendly. We may not be able to succeed in doing this, but we shall, for a time at least, make the attempt.

For instance, why should the pharmacist be compelled to carry in stock six different brands and makes of one single chemical when one would suffice. Probably very few physicians are aware of the fact Urotropin, Formin, Cystogen, Helmitol, Aminoform, and Ammonio-formaldehyde, are really and actually one and the same identical thing; e. g., Hexamethylene-tetramine. Each one of these six names for the same thing is used exclusively by a single manufacturer who claims that his is the best and the only pure and satisfactory preparation; whereas the fact is that, as each makes the same statement, we cannot believe all of them, and must simply assume that each makes a fairly good grade of Hexamethylene-tetramine. Now the physician is not going to remember that word, or to try and use it when he wishes to prescribe for the thing itself. Consequently one physician uses the name of one brand, another remembers the name of another brand, and so on. The pharmacist finds prescriptions coming in calling for all of these six different names, and if he is conscientious he must carry in stock all six makes of one single simple chemical, unfortunately with a long name, in order to meet the fictitious requirements artificially established by these six manufacturers. This is plainly an injustice to the pharmacist, for it demands from him the investment of six times the actual necessary amount of money, for any one single make of this chemical would really do as well as any other.

Then why not agree that when a physician writes a prescription for Urotropin, Formin, Cystogen, Helmitol, Aminoform, or Ammonio-formaldehyde, what he really wants is Hexamethylene-tetramine, and that the pharmacist who fills his prescription with any one of these six preparations is satisfactorily carrying out the requirements of the physician? Let the manufacturers make as many brands of each thing as there are manufacturers, if they like, but let the physicians refrain from being accessory to the crime of ruining each and every pharmacist by helping the manufacturers and compelling each pharmacist to carry in stock numbers of brands of the same identical things.

This is not the only example of reduplication; it is simply cited here as an illustration of one class of things that this department will deal with. If anyone is opposed to the agreement suggested above, we respectfully request that he address the JOURNAL, stating his objections and his reasons for them.

Income From Cultivating the Cocaine Habit—Some interesting light is thrown upon this question in a recent issue of the *Pharmaceutical Era*. Schering & Glatz, in introducing a eucaine preparation in Chicago, sent out a circular stating that their preparation was a "safe and efficient substitute for cocaine." A very stringent law controlling the unlicensed sale of cocaine in Chicago has recently gone into effect, and the Board of Pharmacy is empowered, under this statute, to revoke the license of any pharmacist selling cocaine or other forms of "dope" in violation of the law. The Board has ruled that the eucaine preparation is to be quite as carefully restricted as cocaine itself, and thus the obvious attempt to evade the law by selling eucaine adultered with cocaine, is at once headed off. If the statements published are anywhere near the truth, it certainly was none too soon for the law to step in and stop the murderous trade. One "druggist" (Heaven save the mark! He certainly should ask the pardon of his fellows for thus bringing disgrace upon the name!) is reported to have made some $25,000 a year of this blood money, and to have bought cocaine in 1500 ounce lots. "Another concern which had to give notes and a mortgage on its store to start in business on the levee, made so much money the first year that it paid all its debts and bought a handsome branch store in a residence district, paying cash down. How this was done, of course, nobody can testify but the owners." The statement has been repeatedly made, and as often denied, that the wholesaler and the manufacturer are the incentors to the pharmacists' adulteration. In this case it is specifically charged that agents of the wholesalers have canvassed the field, suggesting to the pharmacists that the preparation may be sold to the "fiends" as a substitute for their "dope," or that it may be mixed with cocaine and sold with safety, owing the very great difficulty of determining the fraud by assay, the chemical formulæ being so similar.

AMERICAN PHARMACEUTICAL ASSOCIATION. FIFTY-FIRST ANNUAL MEETING.

Mackinac Island, Aug. 3-7.

(Reported by P. M. J.)

The association considered a number of questions of scientific interest and policy, but the two matters of principal interest were the report of the special committee on a proposed National Bureau of Medicines and Foods, and the report, and its disposition,

of the committee on adulterations. As the last named committee reported first, its findings will be first given. Only the principal and more flagrant departures from standard are here cited, though the whole list included over 100 items, almost all of which are important pharmaceuticals. Some twenty-five samples of "aristol," or dithymol-diodid, were found to contain not a trace of aristol. This article should leave no ash and should be soluble in ether, yet the following examples taken from the analyses written on the original packages and made by Coblentz, of New York, are instructive:

(1) Ash, 33.7 per cent; ether insoluble, 46.0 per cent.
(2) " 42.0 " " " 46.0 "
(3) " 6.8 " " " 11.7 "
Also contained acetanilid.
(4) Ash, 4.0 per cent; ether insolub e, 8.0 per cent.
(5) " 2.0 " " " 22.2 "
(6) " 42.0 " " " 64.6 "
(7) " 27.0 " " " 37.0 "
(8) " 18.2 " " " 25.0 "
(9)—Pure acetanilid.

Several contained large percentages of free alkali and impurities due to careless manufacture. Some of the other articles noted in the report are as follows:

Arrowroot—All cornstarch.

Beeswax—Paraffin 33 per cent to 60 per cent; starch 33 per cent.

Beechwood creosote—Guaiocol removed.

Linseed meal—Oil removed; sometimes oil removed and petroleum oil substituted.

Mercurial ointment—Containing no mercury!

French almond oil—Wholly peanut oil.

Oil of cedar—"The quality of oil of cedar seems to be abnormally bad!"

Cod liver oil—Mixed with seal oil, or substituted by "coast" or "shore" oil, and sometimes petroleum oils.

Olive oil—Paraffin oil, or peanut oil in most cases.

Black pepper—Seventy per cent ground rice.

Potossium iodid C. P.—(Note the "C. P.") Contained sulphate, chlorid, iodate and sodium—"Not even suitable for medicinal use," in the words of the reporter. Apparently it is a recognized fact that pharmaceutical chemicals must be very remarkably bad to be unfit for "medicinal use"!

Two papers along the same line were also presented; one by G. M. Beringer, on examination of 182 samples of phenacetin, and the other by Dr. H. H. Rusby, on the jaborandi plants used in manufacture. The samples of phenacetin were obtained from Newark, Baltimore, St. Louis, Detroit and New York. In every case the purchaser had asked for "ten grains of phenacetin." Examination disclosed the fact that the actual weight of the powders dispensed ranged from four grains to twenty grains, and that 27 samples were grossly and fraudulently adulterated. At least one was pure acetanilid, and the possible result of taking twenty grains of acetanilid when ten grains of phenacetin were desired, is not pleasant to contemplate. Other adulterants used were boric acid, sodium salicylate and bicarbonate of soda.

Dr. Rusby showed the official specimens of jaborandi, or pilocarpus, as it more correctly should be called, and the spurious and unofficial varieties. He stated that fully 90 per cent of all the jaborandi imported into this country, to be used in making medicinal preparations, was of the spurious varieties, did not contain a trace of pilocarpin, and probably did contain other and harmful alkaloids.

Dr. H. H. Rusby, chairman of the joint committee on a proposed National Bureau of Medicines and Foods, presented the unanimous report of that committee in the form of the preamble and resolutions, which follow:

WHEREAS; The foods and medicines supplied in the United States do not so uniformly agree with proper standards of purity, quality and strength as they should, and

WHEREAS; A degree of distrust and want of confidence concerning the quality of such foods and medicines prevails to a discouraging extent, therefore it is

Resolved; That a more perfectly organized system for remedying the above mentioned conditions than that now existing should be devised and put into operation; and

Resolved; That the American Pharmaceutical Association and the American Medical Association, acting in harmony with the United States Government authorities, constitute the most competent and trustworthy means for attaining the objects named; and

Resolved; That the American Pharmaceutical Association shall coöperate to this end with the above institutions, provided that a plan be devised satisfactory to those institutions, and that the committee of this association be continued and instructed to report to the council. In the event that a plan satisfactory to the council of this association be reported to it previous to the next meeting of this association, said council shall be authorized to elect from the members of the American Pharmaceutical Association a board of directors consisting of five (5) members, to act with a similar board, in the event of its appointment by the American Medical Association, and with the United States Government authorities, in the establishment of a National Bureau of Medicines and Foods, and this council shall immediately upon the election of such board, report the same to the president of the American Medical Association, and,

Resolved; That in carrying out these resolutions, the following general principles shall be adhered to:

(1) That neither this committee nor the proposed board of directors, shall have authority to draw upon any funds of the American Pharmaceutical Association.

(2) That the methods employed for obtaining the objects stated above may include commendation of worthy products, or condemnation of unworthy ones, or both; provided, that said methods of condemnation do not in any way involve the American Pharmaceutical Association in legal responsibility.

(3) That nothing to be undertaken by such a bureau shall be in conflict with the spirit of the United States Pharmacopoeia, or with the United States Government authorities.

(4) That the operation of the proposed bureau shall be free from any attempt to secure financial profit for any of the institutions named herein, nor for any of their members or agents; but said bureau is authorized to employ proper means for securing the funds necessary to defray its legitimate expenses.

On motion of Prof. Diehl, the preamble and first resolution were adopted and the balance of the resolutions referred to the council.

Thursday morning the council set aside for considering the matter, allowing the first hour for those who opposed the matter to state their views, and the succeeding half hour to those who approved the measure. Those representing the manufacturing interests of Nelson, Baker & Co.; Parke, Davis & Co.; Sharpe & Dhome, and the Geo. S. Merrill Co., spoke in opposition to the proposed bureau. The arguments urged against the plan were directed against the idea of certifying worthy articles, and were based on the assumption, by each house, that its name

is a sufficient guarantee of standard, and that to have any certificate affixed to its labels would be derogatory to its dignity. They all admitted the existence of the evils spoken of, but thought a method of condemning unworthy products would be more desirable. From the statements made it was evident that some of those who spoke had not studied the matter sufficiently to understand its details.

On the pro side, Mr. Alpers, of New York, spoke for the retail pharmacists, with whom he had discussed the matter, and said he thought such an organization, if it could be formed, would be the greatest blessing that could happen to the pharmacists of the country. As indicating the necessity for some such undertaking, he cited an experience of his own, the week before: In filling a prescription, he found that he did not have sufficient of a certain U. S. P. fluid extract, and so sent to a nearby store to borrow a few ounces; when mixed the two lots gave a muddy precipitate, though they were supposedly identical. He said they were made by two houses, representatives from which had spoken against the proposed bureau at that hearing.

Dr. Rusby called attention to the statement of Parke, Davis & Co., for the reason they gave for objecting to the proposed organization. They stated that they had expended many hundreds of thousands of dollars in an effort to bring about a general belief that theirs was the only house whose goods were absolutely reliable, and that if such a bureau were organized, it would show by certificate that many of the preparations of the smaller manufacturers were also standard, and therefore, that they would lose business. Their claim, he stated, was either true or false; if true, it argued great need for a bureau, and if false, then they had expended large sums in wholesale deception.

The council took the matter under advisement and through a sub-committee, recommended that the committee be continued to go on with the work, and that if a plan satisfactory to the two associations and the United States Government authorities be developed, that it be adopted.

BOOK REVIEWS.

Radium, and other Radio-Active Substances; Polonium, Actinium, and Thorium, with a Consideration of Phosphorescent and Fluorescent Substances, the Properties and Applications of Selenium and the Treatment of Disease by the Ultraviolet Light. By William J. Hammer, consulting electrical engineer. A lecture delivered at a meeting of the American Institute of Electrical Engineers, and the American Electrochemical Society, New York, April 17th, 1903. New York: D. Van Nostrand Company, 1903. Price $1.00.

This little book is well worth the very careful reading of anyone interested in the subject of radioactivity and the recent discoveries and advances that have been made from the initial work of Crookes, to the recent discovery of radium by Becquerel, and its isolation by Prof. Curie. In places the history of the advancing discoveries and the account of how one thing developed from another, apparatus being devised from step to step, with ever-increasing delicacy, reads almost like a romance. And when the foreground has been cut away and we come to the data relating to radium itself, we find the interest constantly growing. A system of measurements has been carefully worked out and "Where substances are referred to as possessing certain 'radioactivity,' for instance 300, it means that the radiations are 300 times as powerful as the original radiations emanating from uranium which were discovered by Becquerel and which are taken as a standard of comparison," In 1898 Prof. Curie "succeeded in isolating a second substance, found in pitchblend, which was associated with barium and possessed many of the chemical and other characteristics of that substance, and to this they gave the name of 'Radium.'" Of radium and these other radioactive substances, many curious and intensely interesting facts are already known. "Within the past month great interest has been attracted by the statement made by Prof. Curie and Laborde that radium maintains its own temperature at 1.5 Centegrade above its surroundings, this being equivalent to saying that half a pound of radium salt would evolve in one hour sufficient heat to equal that caused by the burning of one-third of a foot of hydrogen gas; that the heat evolved by pure radium is sufficient to melt more than its own weight of ice every hour." Of it Lord Kelvin has said "that the discovery of Bacquerel radiations had placed the first question mark against the principle of conservation of energy which has been placed against it since that principle was enunciated." Only two or three samples of pure radium have been isolated. From one of these, a minute quantity, weighing between two and three-hundredths of a gramme, it was possible to determine the fact that radium is a new element, with an atomic weight of 225. "In answer to my inquiry as to its value, Prof. Curie said that 100,000 francs could not purchase this tiny sample." "As indicative of the enormous difficulties encountered in procuring radium, it is interesting to note that it takes 5000 tons of uranium residues to produce a kilo (2.2 pounds) of radium." The cost of merely handling the uranium residues is said to be approximately $2000 per ton. The whole record of the physical and physiological activity of radium is fascinating, but unfortunately we cannot publish it all, or at greater length.

—P. M. J.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners by leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M. D., Chicago; Alexander D. Blackader, M. D., Montreal; H. C. Wood, M. D., Philadelphia; T. M. Rotch, M. D., Boston; E. Landolt, M. D., Paris; Thomas G. Morton, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh, and John Harold, M. D., London, with Regular Correspondents in Montreal, London, Paris, Leipsic, and Vienna. J. B. Lippincott Company, Philadelphia and London. Cloth, $2.00. Volume 2, 13 Series.

Volume 2 of the 13th series of the International Clinics, is certainly well up to the standard of this valuable set of essays and clinical lectures. Opportunely, at this season of the year, much space has been devoted to diarrhoea and kindred disturbances. Where the material is all so good it seems unfair to comment on one or two things only, yet it is impossible not to favorably mention the excellent articles on Endocarditis in Childhood, by F. J. Paynton, of London, and the very common sense essay of Alexander Haig, on the Etiology, Prevention and Treatment of a Common Cold. The suggestions in the latter article, relative to the relations noted between a uric-acid free diet and absence or cure of cold, are certainly worthy of careful consideration by all.

—P. M. J.

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

Subscription price to non-members of California affiliated county medical societies, $3.00 per year, in advance; single copies, 25 cents. Subscriptions may be sent to publication office, 31 Post St., San Francisco, or to the San Francisco News Co., 342 Geary St., or any of its agents.

OCTOBER, 1903.

EDITORIAL NOTES.

SURGICAL ENGLISH.

The *New York Medical Journal,* in commenting editorially on the address in surgery of the British Medical Association, delivered by Mr. A. W. Mayo Robson, is pained that certain flaws in the diction should have been permitted to creep in. "In St. Thomas's there was 1 ovariotomy, which died, and there were 14 herniotomies, of which 8 died." "Up to 1883 every case of intraperitoneal rupture of the bladder had died, but in that year Sir William MacCormac operated on and saved two lives." This is the same old thing that some of us have been fighting against for years. Beyond question, a *case* cannot die, nor can an *operation* meet with the same fate; it is equally absurd to speak of a *life* being operated upon. Yet these and worse errors are becoming so common that they almost cease to attract notice. This very journal, in the same issue, contains papers in which the misuse of "case," where patient is intended, occurs. There will soon have to be a recognized brand of English, probably called "Surgical English", in which the ordinary conventions of the language will be disregarded, men may talk of "operating this case", or "seeing this case in consultation", and commit the other abominations which seem to be borrowed from German syntax and may possibly be used as indicative of a more or less limited acquaintance with that country or its language.

READING NOTICES.

The *Kentucky State Medical Association Bulletin* has been established as the official publication of the Association, and has reached its third issue. We are certainly glad to see another addition to the number of state association journals, for in time these publications will probably do away with a large number of the cheap and vile so-called "medical journals" that have come up all over the country and thrive on discreditable advertising. Many of these "journals" are owned, body and soul, by one or more nostrum manufacturers, and they are used to aid in debauching the minds of a certain percentage of physicians. It is not easy, unless one knows or has had much experience, to tell the sheep from the goats, and the "reading notice" giving a large sized endorsement of some nostrum may be as well written and read quite as entertainingly as a proper and scientific editorial in some other and reputable journal. A few new remedies are excellent, have an unquestioned value, and are such as to tempt one to occasionally speak a word of commendation. Yet these are comparatively few, whereas the great mass of preparations concerning which "reading notices" are published are either worthless or out and out nostrums, not fit for any man to use or prescribe. Because these things are true, all reputable medical journals, and especially the official publications of state medical societies, should absolutely refuse to print in their reading pages any sort of advertising matter—and the "reading notice" is advertising. The *Kentucky State Association Bulletin* contains a "reading notice," and without in any way reflecting upon the value or the worthlessness of the thing so advertised, we do not like to see it. We certainly cannot ask private journals, operated for profit, to "please be good", when the official publications of medical societies commit the offences which the medical profession desires to have corrected.

ANOTHER SPASM.

The poor W. C. T. U. has had another spasm, due to a severe shock to its sense (?) of propriety. The lovely old ladies who cannot reason logically are decidedly opposed to letting the West Point cadets smoke; perhaps it is feared the cadets' brains will not develop beyond the caliber of the W. C. T. U.; perhaps there is some other reason. They managed to have an order passed prohibiting smoking by cadets. But when the question was investigated, the officials at West Point had the order rescinded, on the very just ground that the cadets would smoke anyhow, and that it was better for them to smoke pipes and cigars openly than to be led into breaking rules and smoking cigarettes secretly. A law that can not be enforced is a harmful law, for it teaches disobedience. We all know that sumptuary laws are more commonly honored in the breach than in the performance, and most of us would be quite sure that a non-smoking rule at West Point could not be enforced in the slightest degree. The increase of drunkenness following the abolition of the army canteen is well known to

all and stands as a monumental object lesson to the harm a lot of misguided cranks who cannot think logically may do if they are permitted to have the chance.

INITIAL PUBLICATION.

On page 320 will be found a letter addressed to the JOURNAL in reference to the matter of initial publication which was commented on editorially last month. We would respectfully urge all members to adopt this policy and give us the opportunity to arrange for simultaneous publication when they wish to have their papers published in another journal in addition to their own JOURNAL.

TO THE SECRETARIES OF COUNTY SOCIETIES.

The JOURNAL desires very much to hear, occasionally, from the secretaries of all county medical societies. We wish to know the names of new members, as they come into the society, and the names of those who terminate their membership. You see the JOURNAL is something more than an ephemeral sheet; it is the official record of the State Society. In its pages appear not only papers read at the local and State meetings, but also the business of the Society and all things that pertain to it and its membership. We should have, in this printed record, all information relative to changes in the personnel of the physicians in each county of the State. The Publication Committee would very much like to distribute itself about the State and gather this information without disturbing anyone; but unfortunately there are one or two matters that need attention in the affairs of every member of the committee, so we are compelled to trespass upon the time of the secretaries of the county societies. We know that you gentlemen are also busy, but we think that you can, if you will try, find time enough to send to the JOURNAL, from time to time, the following information: 1st. Brief reports of county society meetings, with, if possible, abstracts of the papers read; or, and better, the papers themselves; 2d. Prompt notice of the death, marriage, sickness, or other happenings of a member of the society; 3d. Prompt notice of those who come into or go out of the county society, and all changes of address. We think we are not asking too much when we make this request, and we earnestly ask every one of the secretaries to take this matter to heart and contribute his share of the work in placing before the profession of the State all such facts as should be so presented and become matters of record of the Society.

The JOURNAL desires to take this opportunity of thanking the secretaries who have already undertaken to do the work requested, and we sincerely hope that in a very short time we shall be able to extend the same thanks to the secretary of every county society.

MISSING NUMBERS.

Several members have very kindly notified the JOURNAL that they have not received their copies regularly, and in some instances have had no JOURNAL since May. We beg to thank them for writing us. We have recently gone over our mailing list very carefully and have made every effort to make the list absolutely correct; yet there may possibly remain some errors or omissions. Unless we receive complaints we cannot tell that members are not receiving the JOURNAL regularly, and we most emphatically want them to get it, and to read it. We will esteem it a favor if any member who lacks any numbers of the JOURNAL to complete his file will kindly advise us, for every member should have the file complete. To those who have recently joined we can send the back numbers and shall be glad to furnish them at a reasonable price. To all members we would say: "Do not harbor the delusion that we object to receiving 'kicks'; we want your criticisms and your complaints."

TYPHOID PROPHYLAXIS.

Typhoid being a preventable disease, there is no time like the present for us to warn the public what pitfalls to avoid. The frequency with which people returning from a camping trip are stricken down with typhoid before they have been at home ten days, and often before they have reached home at all, would suggest that a little advice on how to conduct a sanitary camp would probably prevent many a case of typhoid. Eating raw clams taken from the mud of a little bay into which flowed the sewage from houses containing typhoid patients, is responsible for a recent case of typhoid in Berkeley. In the same town another patient contracted typhoid by drinking water drawn from a barrel on the roof of the house. No one knew when last the barrel had been cleaned out. The water was pumped by hand from a well which had not for many years been uncovered. To forestall such dangers of infection, the duty must fall upon the shoulders of the family physician, who should sound the warning note. It is not sufficient to tell families to boil the water and milk for drinking when there is doubt as to its purity. They must be told that when there is any likelihood of infection they must boil the water used to wash fruit and vegetables eaten uncooked; that the water from washstands must not be used for cleansing the teeth, and that when a local epidemic occurs all water for toilet purposes should be boiled.

HIGHER STANDARDS.

The Dental College of the University of California began its twenty-second annual session on Sept. 7th. This college inaugurated this year a four-year course. An advance in the matter of educational requirement for matriculation is to be enforced next year, for students applying for admission must have received diplomas from high schools or academies accredited to the State University. The trend of the times is toward higher educational standards for admission to medical and dental colleges, and the JOURNAL is pleased to note that one of our coast institutions is among the first to make the step forward and upward.

PHYSICIANS' DIRECTORY.

The JOURNAL would like those who are members of county societies to call the attention of those who are not to the fact that it is worth while to belong to a county society. It is worth while for a good many reasons, but at the present time we will only refer to one—the material return. Members of county societies are, by virtue of that fact, members of the State Society and as such receive, without further payment than their dues to the county society, the STATE JOURNAL. They will also receive, as soon as it is issued, a copy of the Directory of Physicians of California now in preparation. The directory will go to press in a short time and will surely be issued before the end of the present year. These two publications of the State Society are, from a monetary standpoint, worth a good deal more than the amount of dues paid to any county society in the State. You probably know some one who is not a member of your county society; speak to him about this and hand him, at the same time, an application blank for membership.

COUNTY SOCIETY TRANSACTIONS.

From the Orange County society comes a suggestion that should receive the careful and favorable consideration of every county society in the State. A letter from the Secretary, printed on page 321 states that the society wishes to have its proceedings published in the JOURNAL, so that a file of the JOURNAL will be a complete, published history of their county society and its transactions. What could possibly be better? Here is the chance for the least prosperous as well as the largest and most well-to-do county society to have its proceedings printed free, distributed to every one of its members, and preserved for all time. Furthermore, this is exactly the work that the JOURNAL not only should do, but is anxious to do, and if secretaries of county societies will only help, by devoting a few moments every month to the matter, it will soon and easily be done.

MEETING OF HEALTH OFFICERS.

A very important and significant meeting was held in San Francisco on the 8th of September. The State Board of Health had sent out invitations to all state, county and town health officers to attend a meeting at which an organization of these officials could be effected and the work of all be brought more into harmony. Some thirty-five or forty out of about one hundred and fifty or sixty, attended the meeting. A permanent organization was formed under the name of the State, County and Municipal Sanitary Conference of California, and the intention was declared to hold an annual conference. The matters presented in the shape of papers and discussions were most excellent and valuable. The conference is to be called to meet at the time of the State Society meeting, and at the same place. Many, if not most of the health officers are members of the State Society and attend its meetings. As the Conference is called to meet with the State Society, there will undoubtedly be a large attendance.

DELINQUENT MEMBERS AND THE JOURNAL.

Some months ago the Secretary, acting on instructions from the Board of Trustees, ordered the JOURNAL stopped to those members who were delinquent for dues under the old constitution. The Secretary has spent considerable time and postage in an effort to collect this money. He has patiently sent notice after notice, and in several instances made personal appeals. Some of these members have not taken kindly to the action made necessary by their procrastination, and have actually used the argument that by becoming members of affiliated county societies they have the right to repudiate this debt. Whether or not they are correct from a legal standpoint, the fact remains that it costs money to run a journal, and for a society to prosper its business affairs must be conducted on business principles, which cannot be done if outstanding accounts are allowed to remain on the books unpaid. There now exists another class of delinquent members comprised of those members-at-large who owe for this year's dues. According to the Constitution such dues should have been paid within thirty days following the last meeting. It is to be hoped that these members will promptly remit the amount of their delinquency, for it is desired to have the JOURNAL, as well as the Directory, which will be published

shortly, reach every member of the State Society. All those who were members-at-large at the time of the Santa Barbara meeting, April last, owe the Society three dollars, irrespective of whether they have subsequently joined an affiliated county society or not. Most of these members have paid, some have not; please pay up! Make remittances for dues to Dr. George H. Evans, secretary, 807 Sutter street, San Francisco.

THE CITY AND COUNTY HOSPITAL.

The JOURNAL'S comments in the August number on the needs of the City and County Hospital of San Francisco, and the methods of use of the $10,000 extra appropriation, have resulted in further information on the subject, some of this having come voluntarily and some in response to inquiry.

The resident physician, who is the executive officer of the Board of Health, states that one of the difficulties he has to contend with is inefficient employes and too frequent changes of them; that to secure better men and to keep them longer he has to pay more in wages and salaries, and that this is one way of distinctly improving the service and adding to the comfort of the patients. Independent testimony supports this contention of the resident physician.

In the present condition of the labor market it is easy to understand that every one holds his labor at a higher figure than a short while ago, but it is yet to be shown that the world is getting its work done in a better way because of the higher price it is paying for it, and it would be somewhat extraordinary if the microcosm of the hospital differed in this from the macrocosm about it. Surely it will not benefit from the increased pay given unless the inefficients are weeded out, for no bad servant can be made into a good one by giving him higher wages. But the JOURNAL agrees, as it might be supposed it would do, from what it said in August, that a number of the officers should command higher pay than they did or than they do.

The JOURNAL commented favorably in August on the proposed increase in the number of nurses, and it is now informed that there are ten or twelve more nurses in the hospital than there were a year ago; but it has also learned that these do not count for what they were expected to in the wards, and that they have not materially improved conditions there. It is possible that these women, being still probationers, cannot do what may be reasonably expected of them in time, but even now they should be able to set free from day duty enough junior or senior nurses to increase the night force, which the JOURNAL is informed is still inadequate. Granting that the full quota of nurses has been filled, they are not enough; but the prospect of adding to them is not great, for it will need the appropriation of more money and the building of an addition to the nurses' home, which is at present too small.

The JOURNAL also announced that it would be interested in the way the balance of the $10,000 was to be expended, and it has learned these facts regarding this point: There are now in the hospital more than forty more patients than there were a year ago, and the chances are that the number will be kept up above last year's average; and this increased number of patients must result in an increase of expense. Some of this money will go in that way. The prices of the staple foods, particularly meat, milk and flour, have advanced, and some more of the money will go in that way. However, it is claimed that there will still be a residue for special betterments, and among these new sterilizers and an X-ray outfit were mentioned. It is difficult to say which of these is the more important, but the need of the latter is obvious and it should have been put in long ago.

In spite of this critical spirit of the JOURNAL regarding these special matters, it is still of the opinion, and frankly acknowledges it, that not enough money is given for this service, in the first place, and it knows that everything everybody wants cannot be gotten for 0.70c per caput per diem. This part of the fault lies with the Supervisors, for no matter what may be their opinion of the motives or acts of the Board of Health, they should know that it is an impossibility for any board, good, bad or indifferent, to conduct a proper hospital in a proper way on this amount, and still more impossible to conduct an improper hospital properly.

THIS IS YOUR JOURNAL.

It is certainly a pleasure to know that the labors of the Publication Committee are appreciated, and that the members of the Society are pleased with their JOURNAL. A number of very nice letters have been received, and we wish to thank the writers for their kindly expressed good wishes. But there seem to have been some misunderstandings which it is desirable to point out. To this end the letter from the president of the San Bernardino County Medical Society is printed in full on page 341. Subscriptions to the JOURNAL are included in the dues paid to the county society to which a member belongs, and we wish to call the attention of all who are not clear on this point to the following statement:

On page 197, of the June number of the JOURNAL will be found the following resolution

which was passed at the Santa Barbara meeting:

Resolved: That out of the funds contributed by, and belonging to the members of the Medical Society of the State of California, the Trustees are authorized to appropriate such an amount as is necessary to secure the subscription of each member to the California State Journal of Medicine.

The payment of dues to a county society secures first, membership in the county and in the State societies; and second, the subscription to the JOURNAL and to the Register of Physicians of California, shortly to be issued. The county society pays to the State Society an annual assessment per capita; out of the funds so secured the Trustees have appropriated sufficient funds to secure the subscription of each member to the STATE JOURNAL, and consequently no further sum is required from members of affiliated county medical societies. It is certainly gratifying to see the number of men who are anxious to pay not only their dues to the county society, but a subscription to the JOURNAL as well. The JOURNAL has not reached the plane it set for itself, but it is steadily nearing it. We are doing our very best to make it all that it should be and when members write of " our JOURNAL," we feel that our efforts are meeting with some modicum of success. Each member of every county society in the State should think and speak of the JOURNAL in that way; as his JOURNAL; his individual property; something that he has helped to make and something in which he has an individual ownership and interest. When the time comes that this is the case, the JOURNAL will have succeeded in its desires and intentions and will have the very best warrant for existence. We have several times asked that "kicks" be sent in to the office; we mean that, too, but we would here take the opportunity of mildly hinting that we do not object to "a few kind words" now and then.

National Bureau of Medicines and Foods.

The *Western Druggist*, in a four-page editorial, violently and virulently assails the proposed plan for a National Bureau to secure betterment in the medicines and foods of the country. Without at this time calling up the whole argument of the publication in question, nor demonstrating the reason for its bias, which will be done in due time, I simply desire to reply to one statement. The statement is made that the proposed measure of certification of worthy products is new, chimerical, foolish, impractical, untried, poor logic, and generally puerile and idiotic. All of which is simply misstatement of fact. In Minnesota the flour industry has been purged of adulteration entirely by means of a plan of certification of pure flour; and this result was reached not through a large organization, but through a small private organization. More recently the Department of Agriculture has authoritatively made the same pronouncement in favor of a plan for certification of the worthy product, in the matter of the milk supply of cities. Bad and abusive language is very often mistaken by small minds for logic. Apparently the *Western Druggist* has fallen into this error, for it seems to think the men who have been advocating the proposed National Bureau plan are not serious, are exceedingly ignorant, and are to be discouraged simply by the explosive utterance of immoderate language. Stircoraceous editorials will not outweigh calm reason, and violent attack will not confute logic. If the editor of the *Western Druggist* will have the courtesy to give his reasons for attacking the proposed bureau, I shall be very glad to consider them; in the article referred to he has given none. This is to a certain extent a personal matter with me, for the reason that I am largely personally responsible for this particular feature of the plan of the proposed bureau.

PHILIP MILLS JONES.

To Merck & Co.

The practice engaged in by manufacturers of nostrums, of publishing in or with their advertisements, letters from fictitious persons or individuals of no particular standing or repute in their own communities, is well known. That a first-class house, manufacturing medicinal preparations which it recommends to physicians the country over, should indulge in such questionable methods intentionally and with a purpose to deceive, seems hardly probable. Possibly Merck & Co. have expended some money carelessly. A recent advertisement of theirs reads as follows: "Dr. Carl L. Schilling, San Francisco, Cal., writes: 'I have been using .....for over two years, and cannot say too much of it. I prescribe it wherever a general tonic is indicated and with very good results.'" There is no such name as Carl L. Schilling to be found in any register of physicians. Polk, of the many errors, has listed a "Carl Schilling" who is indicated as having graduated from the Missouri College of Medicine in 1880. The last Register of California has neither "Carl" nor "Carl L." The former Secretary of the Board states that if the name is not found in the 1902 Register, the individual did not receive a license.

The present secretary's office has no knowledge of any such person having applied for a license under the present law. Either Merck & Co. have been mighty careless, or——? In any event, it rather looks as though an apology from them was due the medical profession of the country, and especially the medical profession of California.

The National Druggist—July, prints an editorial anent the proposed establishment of a National Bureau of Medicines and Foods, (which, by the way, it does not like to think about). One sentence only, we quote: "What manufacturer of proprietaries would be willing to print the formulae of the articles on his labels (sic) or even to make them known to an irresponsible board?" The peculiar and touching inconsistency of the editor is shown by comparison with the editorial immediately following, headed "Sell goods for what they are", and is a plea against deception in the matter of *perfumes!* Any old way is all right for medicines, because they are only medicines; let the manufacturer put up whatsoever he pleases and call it what he will, and tell the truth about it or not, just as he chooses; it's *only* medicine.

COMMUNICATIONS.

Further Discussion on Dr. Sherman's Paper Published in August Journal.

To the Editor of the State Journal: Flippant and Irresponsible remarks uttered in medical societies do not call for an answer; but when they appear in an extensively read journal, it becomes imperative to expose error and illiteracy. In the discussion of Dr. Sherman's recent communication to the San Francisco County Medical Society, I endeavored to call attention to two distinct points: 1st., the necessity of rigorous methods in order to avoid errors in diagnosis from contamination; 2d., the increasing importance of the study of anaërobic bacteria in suppurative conditions. I then suggested and still maintain that to submit a specimen to a long journey prior to subjecting it to culture is not in accord with the precision demanded by modern bacteriologic methods. Dr. Sherman admits "that the appendix was taken from St. Joseph's Hospital, where the operation was done, to St. Luke's Hospital, and sent into the laboratory." He also recognizes the "possibility of contamination." I further remarked that the first indispensable step in all bacteriologic diagnoses consisted in making a smear for direct examination. If no bacteria be found, cultures may be dispensed with. But if, on the contrary, a variety of forms be noted, then each variety must be isolated and studied by means of proper culture media. Had Dr. Halton pursued this well-known laboratory method, all criticism and discussion would have been avoided, for no one denies the pyogenic properties of Friedlander's bacillus.*

In answer to my reference to the silence of American writers concerning anaërobic bacteria, Dr. Halton says: "I think that more attention has been given to the anaërobic bacteria than Dr. Tait realizes, and I also think that the reason this work has not been reported is because of negative results obtained."

As corroborative of my assertion, the following facts may be mentioned: (1) In the index of current medical literature published by the *Journal of the Amer. Med. Assn.*, only two American contributions are found during the past two years and a half. Thomas Brown, (in *New York Medical Journal*), 1901, in the study of 57 cases of cystitis, failed to look for aërobia! (2) The absence of complete bacteriologic diagnostic methods in such learned American institutions as the Johns Hopkins Hospital, the Massachusetts General Hospital, etc. (3) The failure of 85% of applicants at a recent Cal. State Board examination to "name two anaërobes."

No one who has followed the development of bacteriology within the past four years will deny that while the number of practical discoveries is rather limited, the study of anaërobic bacteria has opened up one of the most interesting fields of clinical and pathologic observation. Thanks to the efforts of the French school, the entire history of biliary infections is being rewritten on this basis. (Gilbert, Fournier, Lippman). Belief in the frequency of sterile pus has been shattered; the so-called sterile pus, especially that of hepatic and pleural origin, is now known to frequently contain anaërobes. (Babes, Gilbert, Tavel, Courmont). The clinical study of urinary infections, (Albarran, Hallé); study of etiology of cystitis, (Hartmann and Roger, Legueu); of periurethral suppurations (Cottet) has recently been almost remodeled, and the various peritoneal suppurations (Veillon and Zuber, Tissier, Van Ermengem, Courmont, Klein); empyema, (Veillon, Hallé); diverse cranial infections (Guillemot, Rist, Morax) have also profited immensely by a closer consideration of anaërobes. Hartmann, in his recent original contribution—*Travaux de Chirurgie Anatomo-clinique*, 1903—devotes an entire section to the study of anaërobes in cystitis, demonstrating their all-important role. The bacteriologic study of appendiceal pus, circumscribed peritoneal abscesses and general peritonitis, has shown an almost constant predominance of anaërobes over the aërobic bacteria; in numerous cases the anaërobes alone were present. "The later the surgical intervention, the more varied the bacterial flora of appendiceal pus." (Rist, Velllon, Courmont.)

By consulting the files of the *Annales de l'Institut Pasteur*, the *Centralblatt f. Bacteriologie*, reading carefully the reports of learned societies, perusing a few French and German inaugural theses, Dr. Halton will learn that Veillon's work has been both confirmed and vastly added to by a long list of experimenters who demonstrated the pathogenic properties of more than eight anaërobes and illustrated the marked virulency resulting from the association of a harmless staphylococcus with an anaërobe. It will also become apparent that anaërobes are not confined to gangrenous tissues, as claimed by Dr. Halton, but more often found in suppurative processes. (Courmont, Roux, Rist, Guillemot, Gilbert, H. Roger).

If, however, in Dr. Halton's opinion, bibliographic data be inadequate proof, I suggest that a personal inspection of the laboratories of such authorities as Roux and Metchinkoff, at the Pasteur Institute; Travel, at the great Kocher's clinic; Albarran or Gilbert, in the Paris hospitals, would furnish incontrovertible evidence of the incompleteness and unreliability of the methods adopted in the study of Dr. Sherman's case, thus demonstrating my original contention that a dilettante can never be *persona grata* in the field of bacteriologic research.

REFERENCES:

Veillon et Zuber-Archives de Med. Exper. 1898, p. 517. Soc. de Biol. Paris, 1893, 1897. *Bul. International Med. Congress*, Paris, 1900.
Rist—*These*, Paris, 1898. *Bul. sec. med. des. Hop.*, Paris, 1901, p. 463. *Br. Med. Journal*, 1901, p. 1052. *Central f. Bact.* 1901, p. 287.
Guillemot—*These*, Paris, 1898.
Cottet—*These*, Paris, 1899.
J. Hallé—*These*, Paris, 1898.
Courmont—*Traite de Bacteriologie*, 1902.
Albarran—*Bul. International Med. Congress*, 1900.
Hartmann et Roger—, in *Travaux de Chirurgie anatomo-clinique*, Paris, 1903.
Gilbert et Lippman—*Soc. de Biologie*, Paris, 1902-3.

DUDLEY TAIT.

*Pure cultures of Friedlander's bacillus, in peritoneal supperations, have been reported by several French writers (Villemin, Sec. de Pédiatrie, Paris, June, 190), Courmont, Traité de Bact., Lyon, 1902.

Initial Publication.

To the Editor of the State Journal—Responding to your editorial concerning "Initial Publication," I beg to say that although I have no reason to believe that a paper I read at Santa Barbara on "Tuberculosis of the Peritoneum and Adnexa" will be selected by the committee for publication in the JOURNAL, it is but courtesy to the committee to say that the MS. has been accepted and will be published by the *New York Med. Journal*, but of what date I am unable to tell. Having done much of the editing of the transactions of the society of a distant state in years past, I can readily appreciate the embarrassments of the committee, and it was in ignorance of the custom in California that I did not earlier formally request the privilege of publication elsewhere. While at Santa Barbara I did enquire of the secretary (Dr. Evans) what privilege the contributor had in this instance, but the impression his reply left upon my mind was that it was quite at the election of the contributor.

Very sincerely yours,
ANDREW STEWART LOBINGIER,
Los Angeles, Sept. 5, 1903.

Excellent Suggestion.

Santa Ana, Cal., Sept. 11, 1903.

To the Editor of the State Journal—Replying to yours of the 10th will say that Dr. Ball, one of our Society members said yesterday that if we could secure a complete file of the JOURNAL he would contribute the binding of the first volume and suggested that I send a report of each meeting in order that it might become a history of the Society and be placed in the library. If you will kindly send us the complete file we will see that each volume is bound and kept in the library.

Respectfully yours,
H. S. GORDON,
Secretary.

(Note.—This is an excellent suggestion and one that should receive the careful consideration of all county societies. The JOURNAL should be the printed history not only of the State Society, but also of each of the component county societies. This it will be just as soon as each and every county society sees to it that some one member, either the secretary or someone else, looks after the work of sending in to the JOURNAL reports of the county society meetings, and all news and matter relative to county happenings. —Ed.)

County Society Reports.

To the Editor of the State Journal. Sir: If the Publication Committee still declines to publish our reply to the Resolutions passed by the Santa Clara County Medical Society, kindly return our paper by bearer. We do not feel that a shorter or less specific reply will compensate for this unjust attack and shall be compelled to seek redress through other channels.

We shall be pleased to have you publish this letter in your October issue. It will serve to show the profession that we do not intend to remain quiet under these charges.

Yours truly,
D. A. HODGHEAD,
W. F. SOUTHARD.

In the September issue of the JOURNAL appeared the report of the August meeting of the Santa Clara County Medical Society. It was printed for the reason that the Publication Committee has, from the first, declared that, in its opinion, one of the principal reasons for the existence of a State Journal was that the reports of all county societies might be published and become matters of record. If the JOURNAL does not exist for that purpose more than for any other, we are profoundly mistaken. At the meeting referred to certain resolutions were passed anent a suit against the Board of Medical Examiners. These resolutions contained matter reflecting upon the motives actuating those bringing the suit and upon those connected with a medical school in San Francisco. The gentlemen in question prepared a statement in reply and sent it to the JOURNAL, requesting that it be published. The editor declined to assume responsibility in the matter and referred it to all the members of the Publication Committee who could be reached immediately. These members, without exception, decided that the matter as sent in should not have space in the JOURNAL for the following reasons: 1st, The report of the county society was a matter of formal business of a component society and its publication was proper; 2d, the reply sent in was a personal communication in which a personal attack upon a member of the society was made, and an intemperate attack upon the Society itself was included; 3rd, that such being the case, it was decidedly and extremely controversial, and we are proscribed from entering into matters controversial. The editor offered to assume the responsibility of publishing in this issue a general letter of denial addressed to the county society and not to the JOURNAL, (for the JOURNAL had made no arraignment) which should be free from all matters of a personal nature and all attack upon the State Society. This offer was not accepted by these gentlemen, hence the Committee feels that this explanation is due the members of the Society. Personal communications containing matters controversial (except for discussion of scientific questions), will *not* be published in the JOURNAL.—Ed.

PERSONAL MENTION.

Dr. August Pohlman has been appointed assistant professor of anatomy at the Johns Hopkins University.

Dr. O. C. Fitzgerald of Los Angeles, who has been very ill for some months, is able to return to his office.

Dr. W. A. Taylor and Dr. William F. Blake were recently elected members of the Santa Barbara County Medical Society.

Drs. W. R. Davis, J. B. Thomas, C. W. Hack, G. S. Wallace and F. Du Bois of the Army, have returned from service in the Philippines.

Dr. John G. Curtis, professor of physiology at the College of Physicians and Surgeons of Columbia University, has been elected acting dean of the college.

The following named physicians have become members of the Santa Clara County Medical Society: J. U. Hall, T. A. Perrin, J. D. Grissim, R. A. Whiffin, Paul Sanford, F. H. Paterson, L. V. Saph, M. S. Silva, E. I. Filipello, I. N. Frasse.

Dr. Joseph Marshall Flint, professor of anatomy at the University of California, and Miss Anne Apperson, niece of Mrs. Phebe Hearst, were married on September 15 at the summer residence of Mrs. Hearst, Hacienda del Pozo de Verona, near Pleasanton.

Dr. E. W. Scripture, assistant professor of experimental psychology at Yale University, has resigned and is succeeded by Dr. Charles H. Judd, A. B. (Wesleyan), Ph.D. (Leipzig). Dr. Scripture is spending the year at Leipzig, where he is carrying on researches on the analysis of speech by means of gramophone records under the auspices of the Carnegie Institution.

Recent removals: Dr. A. H. Taylor and Dr. George B. Somers, from 123 Ellis to 606 Sutter Street; Dr. G. H. Boskiwitz, from 1106 Post to 1220 Sutter; Dr. W. P. Willard, from 1805 Fillmore to 1207 Sutter; Dr. E. W. Thomas, from 417 to 439 Third; Dr. Philip King Brown, from 1303 to 1612 Van Ness Ave.; Dr. Kate I. Howard, from 590 Sutter to 1600 Fell; Dr. A. B. Grosse, from 2124 Post to 803 Sutter; Dr. Louis A. Kengla, from 1121 to 1220 Sutter; Dr. Emmet Rixford, from 1400 Van Ness to 1795 California, San Francisco.

LUPUS ERYTHEMATOSUS*

By ALFRED B. GROSSE, M. D.

IT IS not my purpose to deliver an exhaustive paper on Lupus Erythematosus this evening, but simply to present to you a brief epitome of the present aspect of the disease, its therapeutics, a description of the Hollaender method, how it was arrived at, and my results with the same.

The disease was called Lupus Erythematosus by Cazenave in 1851, Seborrhoea Congestiva by Hebra in 1845, and Ulerythema Centrifugum by Unna.

The disease begins with one or more pinhead to linnet-seed sized red slightly elevated macules with primarily a smooth glistening surface which later becomes depressed in the center and which depression is either topped by a scale or shows a cicatricial shining dimple. The scale is usually adherent to the patulous duct of a sebaceous gland. Kaposi divides the disease into two forms: lupus erythematosus discoides and lupus erythematosus disseminatus, both of which arise from the above described primary efflorescence. The seat of predilection is the nose and its surrounding structures; the mucous membranes of the face, and the scalp and hands are sometimes attacked, no part of the body being immune. Women are more prone to the disease than men.

Therapeutics—From the number of drugs and procedures that have been recommended it will easily be seen how intractable the disease sometimes is. 1, Kaposi recommends the application of tr. sapo. virid; 2, a 10% salicylic ac. soap plaster has given more or less results; 3, Ichthyol in varying strengths has been used; 4, Resorcine paste 5 to 20%; 5, Ung. hg. ammon. 5 to 10%; 6, Ung. B-naphthohol 3% to 4 %; 7, Lassar's schaelpaste, i. e. sulph. naphthohol paste; 8, Jarish recommends 5 to 10% ac. pyrogall paste; 9, Hot compresses of liq. alum. acet. have been quite successful during the acute stage; 10, linear and punctate scarification as well as radical curettement have been tried; 11, Electrolytic puncture or puntate cauterization with paquelin is advised by Lassar. Hollaender hot air cauterization has been successful with some of Lang's patients; 12, Ung. hg. iod. from 5% to 30%; 13, Cauterization with bichloride hg., collodion ac. carbolic, ac. trichlor acet., sol. Fowler or tr. iod.; 14, Painting with equal parts of spts. vin. rect., spts. menth. pip. and sluph. ether. This was recommended by H. Hebra and used quiet successfully by Neisser, Jarisch and Lang; 15, X-ray and Finsen ray have in some cases given good, and in others no results. I refer to the reports of Freund who has charge of light therapy in the Vienna clinic. My own experience with the Finsen treatment, though favorable, is as yet too limited to allow the drawing of definite conclusions; 16, Internal remedies have never evidenced any specific action, with possibly the exception of quinine 15 to 20 gr. per day given for a number of months as advised by Wolff. Neisser has had some favorable results with this treatment.

Histo-pathology. Many examinations are extant, but I will only cite those of Neumann, Kaposi, Jadassohn and Unna, whose results agree in the main; i. e. inflammatory infiltration of the vessels of the corium, particularly in the subpapilary ones that are distributed to the glands, ducts and hair follicles. This focal infiltration is considered the principal factor, the question at issue being whether the process spreads from below upward or *vice versa.* Jadassohn has shown the process to be diffuse on the surface becoming more circumscribed as it dips deeper into the corium.

Jadassohn's paper of 1896 which discusses the pros and cons of the various publications in favor of and against tubercular origin and connection of the disease, may here be briefly cited, together with the later publications of Roth and C. Boeck.

In favor of its tubercular origin and connection. 1, Lupus Erythematosus is always, or at least most frequently, found in tubercular individuals; 2, Lupus erythematosus patients are often attacked by tuberculosis, especially of the glandular type, and often die of tuberculosis; 3, The clinical picture of lupus erythematosus and lupus vulgaris are very similar; 4, there are transition stages between the two diseases; 5, Lupus erythematosus may react to tuberculin; 6, Roth's statistics prove the presence of tuberculosis in most cases of lupus erythematosus; 7, C. Boeck's hypothesis that the skin lesion is due to toxins evolved by the bacillus tuberculosis in the organism.

Against tubercular origin of lupus erythematosus. 1, Tuberculosis is not more frequent in patients with lupus erythematosus than in those suffering from other chronic diseases; 2, Tuberculosis attacking such patients is either simply accidental or due to the depressing or weakening tendency of the system from long existence and invasion of the disease; 3, Lupus vulgaris and lupus erythematosus are not to be mistaken for one another; 4, The supposed transition stages do not exist and have never been satisfactorily demonstrated; 5, In the majority of cases no tuberculin reaction took place; 6, Histologically they are totally different, neither microscopically, culturally nor by inoculation have tubercle bacilli been demonstrated in lupus erythematosus.

Hollaender, the originator of the hot-air treatment for lupus which up to date is the most satisfactory when large areas are involved, had, among the many lupus cases that came to him for treatment, quite a number of lupus erythematosus patients, none of whom were benefited by

*Read before the S. F. County Medical Society, August 11, 1903.

the treatment. He deduced from this the absence of the bacillus tuberculosis in the skin. Having tried k. i., ergotin and other drugs, thinking the disease due to a capillary disturbance, he stumbled, as it were, upon his present treatment, the internal administration of quinine gr. 7, three times a day, and painting the skin lesion with tr. iod., 10 minutes after the ingestion of the quinine, i. e., upon the reaction of the skin lesions. This reaction he considers pathognomonic and of as much importance in lupus erythematosus as the tuberculin reaction in lupus vulgaris. This treatment is persisted in for about six days when a fair-sized lamellar scab forms which is approximately exfoliated in six days when treatment is again resumed. This course is persisted in for weeks or months until cure takes place. Patients who seem cured but still have an itching sensation in the old patches, though the skin shows no sign of trouble, will quickly react to quinine at these points, demonstrating remaining foci. Quinine without tr. iod. has in some few cases been beneficial, while the sole employment of tr. iod. does rather more harm than good. Having had several cases in the past which gave more than ordinary trouble, no relief being obtained from the many therapeutic procedures, and reading the description of this treatment with the number of reported cases appended, the great simplicity of the treatment and the marvelous results reported, prevailed upon me to try it in a very obstinate case recently under my supervision. We must not lose track of the fact that this disease sometimes tends to sudden auto repair so that a cure, or even several, must not be considered absolute results. What impressed me particularly was the local reaction obtained after the ingestion of quinine.

Date, Jan. 4, 1901. Diagnosis. Lupus Erythematosus. Name, Mrs. L. K. Occupation, housewife. Nativity, Pole. Age, 29. Family history. Father living and healthy; mother died in childbirth; 2 sisters living and healthy; one brother died at sea; another brother, age 24, is healthy. No tuberculosis in family. Previous history: Always healthy; had 2 children at term; has been losing in weight for last year; 5 feet 6 inch in height; weighs 145 lbs.; formerly weighed 160 lbs. Present illness: A patch on the bridge and both sides of the nose and the cheeks adjoining. Butterfly shaped, periphery raised, center depressed, ducts patulous. Physical examination negative, blood negative, hemoglobin 90%; no differential count made; no reaction to the tuberculin test. Treatment: Iodid amylum, drachm i three times a day, emplast hg., locally applied Jan. 11, '01. No result; condition about the same. Feb. '01, creosoti gtts. three times a day; painted with Fowler's solution. Patches slowly enlarging. March, '01. Stopped internal treatment; hot liq. alum. acet. compresses, followed by slight improvement. May, '01. A change to worse; general condition not so good; complains of dizziness, weakness in limbs, skin lesion increasing; a new one on scalp; strychina, gr. 1/40 three times a day and ung. ac. pyrogall. 5%. June, '01, no result; patient discouraged; cessation of treatment; sent to high Sierra. August, '01, improvement in general condition; new patches to left of sternum and on left ear; painted with ac. carb., three times a week. October, '01, no result; patient despondent; pil. asiaticae in increasing doses; painted patches with equal parts of alcohol, ether and spts. peppermint. Nov. '01, slight improvement; no increase of old and no new patches. Jan. '02, general condition poor; insomnia; lack of appetite; physical examination negative; patches on index and middle fingers of right hand resembling chillblains. Stopped arsenic; used punctate paquelin cautery. March '02, condition about the same; elix. ferri quin. et strych., internally, and ichthyol externally. April, '02, slight general improvement. May '02, no improvement; patient hopeless; wishes to try Christian science. Aug. 16, '02, sent for patient; condition worse than when last seen; weight 136 lbs., plaques covering nose, both cheeks, left ear, two patches on scalp, hair destroyed, one near sternum and on index finger of right hand; middle finger seems well. Quinine gr. 8, 3 times a day, and tr. iod., painted on patches on reaction. Aug. 25, '02, good-sized scaly scabs; intermission Sept. 1, '02; scabs exfoliated, patches improved, treatment resumed. Sept. 6, '02, scabs formed, no bad results, treatment discontinued. Sept. 15, '02. Scabs exfoliated, general improvement, patches smaller, treatment resumed. Sept. 20, '02, scabs formed, feeling well, no objection to quinine, treatment discontinued. Sept. 29, '02, scabs exfoliated, marked improvement, patches smaller, finger well, treatment resumed. Oct. 4, '02, scabs formed, feels well, treatment discontinued. Oct. 13, '02, scabs exfoliated, almost cured, treatment resumed. Oct. 18, '02, scabs formed, treatment stopped. Oct. 27, '02, scabs dropped, looks absolutely well, Lassar's paste. Nov. 12, '02, slight itching in site of old patches, particularly on both sides of nose; a little reddening, looks like relapse, treatment resumed. Nov. 18, '02, scabs formed, treatment stopped. Nov. 29, '02, scabs fallen; seems well, treatment resumed. Dec. 4, '02, scabs formed, treatment discontinued. Dec. 11, '02, scabs dropped, patient well, ung. diachili. Jan. 20, '03, no relapse. Feb. 14, '03, no relapse. April 2, '03, no relapse. May 2, '03, no relapse. Aug. 27, '03, patient looks well, has gained greatly in weight, general health good, scars of skin lesions flat and slightly telangiectatic.

The case of the man aged 34 years with a plaque involving left ear and greater part of left cheek has, like the above reported case, gone on to uneventful recovery under this treatment.

Deaths.

Dr. O. H. Simons died at Magnetic Springs, Santa Cruz County, on August 22. He was born in Ohio in 1846, graduated from the University of Pennsylvania, served in the Civil War and was U. S. consul at Hong Kong from 1889 to 1894.

Dr. Warren H. Blood died September 12 at his residence in Oakland of pneumonia. He graduated from Cooper Medical College at the age of 21 and was 39 at time of his death.

A prospective "new remedy"—"Under proper conditions sugar is a remedy against chlorosis, anemia, and in scrofula." *(Drogistsche Rundschau,* translated for *Nat. Druggist.)* It certainly is astonishing that we have not already on the market a number of brands of this new and highly beneficial remedy, each under a controlled name and each infinitely better than any similar preparation that anybody ever heard of. But there is yet time.

THE SAN FRANCISCO QUARANTINE STATION.

By HUGH S. CUMMING, M. D.

Passed Assistant Surgeon, Public Health and Marine Hospital Service.

TO INTERFERE with commerce and commercial interests as little as is consistent with the sanitary safety of the whole country; to ever hold its health interest more important, but never to forget that commercial well-being is also essential to the country; that undue interference with commerce entails poverty, that poverty itself brings unsanitary conditions, and consequent sickness and death; that, therefore, while neglect of sanitation is a crime against nature and the body politic, illogical, misdirected, over-zealous efforts in sanitation may defeat the very object of all sanitation; the preservation of the well-being, the increase of happiness and longevity of the individuals forming a community or a nation, should be the object of every sanitarian. The ability to rightly balance the two interests—sanitary safety, commerce—which, from a broad standpoint, are interdependent, but which, in individual cases, seem widely opposed, constitutes the true sanitarian, but especially the successful quarantine officer. Quarantine, therefore, does not guarantee absolutely the prevention of the importation of a case of infectious disease, nor does the most perfect fire department or regulations do away with all fires, or double track and block system stop all railroad accidents; but, because of this we do not stop all commerce with infected ports, forbid all fires in cities, or cause all railway trains to cease running; nor would we throw away all railway signals, break up all fire apparatus, or abolish all quarantine restrictions. On the other hand, we should require such buildings as will lessen the danger if fire should start, and communities should recognize that, while outposts and guards are essential and should demand the best possible quarantine, they should also place themselves in such sanitary condition that even if disease should gain entrance, it would find little opportunity to spread.

The National Quarantine Station for the port of San Francisco, conducted by the Public Health and Marine Hospital Service of the United States, is, in a quarantine sense, the "heir of all the ages," and it is "in the foremost ranks" of the quarantine stations of the world. Its equipment is the result of evolution and the survival of the fittest in inspecting, disinfecting and detention facilities, and the rules governing it.

"The Quarantine Laws and Regulations of the United States, 1903," are the most enlightened, logical and scientific governing any country. While it is true that even the earliest laws of Virginia, Pennsylvania, Massachusetts and one or two other colonies, provided for detention and disinfection by the air, sun or fire, of infected vessels, and that Congress, in 1799, passed a national quarantine law requiring all officers of the United States to assist in executing state quarantines and directing Collectors to require a practique, it is equally true that modern quarantine methods were not begun until about 1880.

Surgeon-General John W. Woodworth, in a notable address before the International Medical Congress, Philadelphia, 1876, presented conclusions adopted by the Congress, recommending port and internal sanitation, etc., and after a series of investigations by Congress, the American Public Health Association and others, which showed inadequate, barbarous laws and worse practices in some of the states, the law of 1878 was passed, giving authority to the Marine Hospital Service.

In 1879 the National Board of Health, composed of appointees from various states and the three Services, started four "stations of refuge" on the Atlantic coast, for infected vessels from

inadequately equipped state and local stations, but no station on this Coast. In 1883 the quarantine functions reverted to the Marine Hospital Service.

In 1883 the Governor of California applied to the Marine Hospital Service for the establishment of a national station at this port, on account of the danger of introduction of yellow fever from the Mexican coast, where it was raging; and of cholera and smallpox from the Orient. There was, unfortunately, no available money for the construction of a permanent station, and the authorities of San Francisco, while willing and ready for a permanent station, declined the proffer of a boarding station and an inspector.

In 1885 recommendations were again made by the Marine Hospital Service for the establishment of a government station at this port, and attention was called to the fact that there was no effective quarantine on the Pacific coast, despite yellow fever, cholera and smallpox threatening it. In 1886 this recommendation was renewed, and a board of medical officers of the Army, Navy and Marine Hospital Service, selected the present site.

August 1st, 1888, "an act to perfect the quarantine service of the United States" was approved. This act provided that the quarantine should be conducted by the Marine Hospital Service, in accordance with the act of April 29th, 1878, and provided for stations at San Diego and Port Townsend, and also contained the following:

For the quarantine station at San Francisco, California: Hospital buildings and officers' quarters, disinfecting machinery, warehouse and wharf, steam tug, small boats, expenses for the fiscal year eighteen hundred and eighty-nine, one hundred and three thousand dollars.

A board appointed to select a site, consisted of the Collector of Customs, the President of the State Board of Health of California (R. Beverly Cole, M. D.) and Surgeon Sawtelle, M. H. S then on duty at the Marine-Hospital.

The War Department, on request, transferred a part of Angel Island, in San Francisco harbor, for the station. The Service, recognizing the importance of San Francisco, planned a complete equipment for the station. No time was lost in planning or construction; work began on April 15th, 1890; the wharf and buildings were finished on December 30th, 1890, and the disinfecting machinery about January 15th, 1891. The station thus completed, cost $97,841.00. A fumigating steamer, equipped with sulphur furnace, was completed in 1892, at a cost of $28,900.

In 1893 the U. S. S. *Omaha* was transferred by the Navy, and made suitable for the detention of suspects. In 1895 the fumigating steamer *George M. Sternberg* was made a boarding steamer, and the hulk *Omaha* moved from the cove to an anchorage, and used as a fumigating hulk. In 1895 a fast steam launch, the *Bacillus,* was constructed at a cost of $3000, and $5000 appropriated for a bath house for passengers, and a laboratory fitted out sufficiently for all ordinary purposes.

Under the act of Congress approved June 6th, 1900, there was appropriated for improvements: Iron pier for disinfecting plant, $100,000; electric light plant, $10,000; additional accommodations for cabin passengers, $10,000; water system, $5000; heating apparatus, $2000; extension of disinfecting and isolation buildings, $3500; disinfecting and laundry appliances, $1200; in all $131,700.

A board of pilots, and others, decided that it would be hazardous to dock the immense vessels now plying to this port at any pier built at the station; other sites could not be secured from the War Department, and a floating plant was decided upon, but has not yet been constructed.

Plans are now completed for a suitable boarding tug to take the place of the converted fumigator *Sternberg,* whose usefulness has been outgrown by the commerce of this port.

The station is situated on Angel Island, about five miles north of San Francisco, being located in Hospital Cove, a quiet little valley on the north shore of the island, surrounded by precipitous hills, green all the year, and is a place of great natural beauty. It is well sheltered from the fogs and winds; is sufficiently distant from the city, and, aside from the swift currents of Raccoon Straits, which separate it from Marin County shore, is an ideal site for a quarantine station.

The equipment of the station can perhaps be best described by taking an instance when a large liner is detained for disinfection, and detention of her personnel for observation during the incubation period of the disease which causes her disinfection. The instant the quarantine officer decides it is necessary to hold her, the vessel weighs anchor and leaves the inspection ground for the hulk *Omaha.* Passengers and mail are handled first, and, as on the vessel, the personnel must be kept in the following groups: Cabin passengers (first and second), European steerage, Asiatics, and of these, Chinese and Japanese must be separated. The crew is separated in a similar manner. Passengers, with their baggage, are transferred by steamers to the station. Here they land upon a wharf 271 feet long, with an arm 104 feet; upon the wharf is a large building with two rooms. Gate, partitions and doors separate the whole north wharf building and grounds from the rest of the station, all persons going through bath houses, and effects through the disinfecting chambers before going to the barracks. In this north, or "infected" room, are small wire cages; each person is directed to divide his effects into two lots, one of goods not injured by steam, the rest for formal-

dehyde. Directions are printed upon the walls, and trained officers and attendants, including a female trained nurse for women, watch every process. The cages are now placed upon flat cars standing ready upon a track which makes a circuit from infected room through disinfecting chambers, to clean end of shed and wharf.

The disinfecting house is a large building, 92x 54 feet, divided into two rooms by a tight partition; adjoining it are the boiler house and steerage dressing room, the whole having a cement floor. In this house, with one end of each projecting into the "clean" room, are three cylindrical, double jacketed chambers for the disinfection of clothing, mail, baggage, bedding, etc. Each chamber is forty feet long and seven feet in diameter, and all have steam supply and return pipes, gauges, safety valves, pressure regulators and thermometers which show the temperature of both jacket and interior. Each is connected so that either steam or formaldehyde may be used. Let us take the chamber containing bedding, etc., to be steamed. Steam is already circulating in the jacket and the chamber is warm; doors at either end are hermetically sealed, and a steam ejector in one minute makes a vacuum of fifteen inches in the huge chamber; the heat from the jacket soon warms the contents and live steam is now streamed into the chamber until a pressure of ten pounds is reached. After the thermometers have shown a temperature of 104° to 105° C. for not less than twenty minutes, the steam is turned off and a vacuum is again created, the hot jacket soon drying the contents of the chamber. Air is now turned in and the contents removed by opening the clean end, out of which the cars run on to a turn table, thence to be repacked. In the case of trunks, pictures, fine silks, leather goods, etc., a vacuum of 15 inches is made, as in the case of steam, and held until the thermometer shows a temperature of 60° C., when formaldehyde gas, evolved from a mixture of neutral salt and formalin, in an autoclave, under pressure, using not less than 30 ounces of formalin (40%) to the 1000 cubic feet, is injected. After a total exposure of one hour, the vacuum is made.

Having sorted their clothes, passengers are now conducted to the steerage or cabin baths. In the former every particle of effects is left in the disrobing room, whence it goes to the cars under supervision of attendants; each person is given soap and towel and after a warm shower bath of fresh or salt, or bichloride of mercury water, and inspection while nude by a medical officer, goes through another room where he is given a suit of clothes and slippers which he wears while waiting for his disinfected clothes.

Cabin passengers have a house containing waiting rooms with open fires, etc., at either end. Each person goes into a little disrobing room, thence into a small shower bathroom, where, after a bath, he is furnished bath robe and slippers, and then waits in the clean end. The sexes are kept separate and a trained nurse is with women and children.

Each person landed having now been separated from the source of infection, whether it be the vessel, the sick, his own clothes or personal effects, and all that he has being "clean," the problem of taking care of the personnel for observation during the incubation period of the disease remains.

Along the walk from the clean end of the wharves and disinfecting sheds are two long buildings with bunks which will accommodate 576 Chinese steerage; behind them are lavatory and trough toilets, and nearby is a Chinese "kitchen." Surrounding this compound is an eight foot barbed wire fence. Passing a gate we come to a large one-story building with kitchen and dining room in front and behind, two large rooms separated by a hall, each with toilet. Upon canvas bottom cots in tiers, are standees for 176 Japanese steerage, one room for each sex. A barbed wire fence and solid partitions on verandas, make this another compound.

Next is a similar building, the front of which is used as executive offices, dispensary and quarters for a trained nurse; behind these are two rooms with hospital beds and tables, with two well-equipped bathrooms. These rooms accommodate about twenty-six people and are for ordinary cases of illness during detention, but on account of lack of room, are sometimes used for cabin passengers.

Next along the water front is the new building for cabin passengers. This is a T-shaped, two-story building. The long arm has verandas upon which open a series of staterooms each with two berths of hair mattresses over wire springs, lavatory with running water, electric lights, mirror, folding table and hot water heat. Ample toilet and bath facilities are provided for each sex. In the first floor of the transverse arm are a large dining room, kitchen with ranges, etc., and above are seven rooms. This building accommodates about sixty-eight persons. Still further to the west along the shore, we come to another "compound" containing two connected houses, one of which is used for detention of ships' and customs officers or passengers, the other for attendants. There are accommodations for thirty-six people here. So much for the well; but before any of this is done, the sick are removed from the vessels.

For the isolation and treatment of contagious diseases there are two groups of buildings, each with an eight foot wire fence forming a "compound," separated from each other and from

the rest of the station; each is, in fact, a substation. One compound is upon the bluff at the extreme northeast point of the station, seventy-five feet above water. One building contains a ward, three rooms, bath and toilet and hall with kitchen beneath; the other building has two rooms and toilets for medical officer and nurse.

There are telephone and electric lights from the station, and hot water heat. In a beautiful little cove, several hundred feet to the east, accessible by water, is a similar "isolation compound" of three buildings. On the east side of the island is a large detention camp, used for overflow crowds of troops, etc.

The wisdom of having isolation facilities for more than one disease is evident, because all have been in use simultaneously twice within the past three months.

On a hill above the Oriental barracks, are two one-room observation buildings, each isolated by wire.

If, during the inspections given detained passengers, any suspicious case is detected, it is removed to these buildings, thence to the non-contagious or isolation hospitals, as may be. Nearby is a laboratory building, well equipped for diagnosis, the room for infected animals being concrete. In a distant building are kept healthy guinea pigs, rats and pigeons for diagnostic purposes. Under the isolation hospital bluff, next a separate landing, is a brick oil-consuming crematory for bodies dead of quarantinable disease. Toward the main group is a corrugated iron building containing the electric light plant, which, with its two dynamos, direct and storage batteries systems, runs the arc and incandescent lights over wharves, buildings and grounds.

Nearby are the animal house, machine, carpenter, paint and smith shops. Behind the executive building is a completely equipped steam laundry. Fire protection is afforded by two pumps which throw sea water to tanks 275 feet above the station, thence by gravity through a system of pipes the water is distributed to water plugs. Fire drill is required by regulation at least once weekly.

The fresh water supply comes from a spring 285 feet above the station and from a 6-foot well sunk 75 feet to solid rock, with two thirty foot galleries. Water is pumped to these tanks, capacity 51,000 gallons, thence distributed by gravity, and the water shed and pump house are protected by eight-foot wire fences.

Suitable quarters for the commanding and junior officers are provided in three buildings upon the hill, back of the other buildings.

The total normal capacity of the station is 1104 persons, (steerage 816, cabin 102, isolation buildings 8, non-contagious hospitals 35, "small-pox compound" 9, "cholera or plague compound" 4, *Omaha* 130,) exclusive of station force. Fifteen hundred to two thousand persons, with baggage, can be handled in one day.

The reservation is so arranged that a system of barbed wire fences segregates various groups; all important buildings are connected by telephones and the commanding officer's quarters have connection with the city telephone system.

After the infected vessel is moored alongside the *Omaha* and the sick passengers, mail, carpets, bedding and most of the crew removed, disinfection begins.

Regulations prescribe that, in general, holds of empty vessels shall be disinfected by (a) exposure for twenty-four hours to S O_2, generated by burning 5 lbs. of sulphur per 1000 cubic feet, or liberated from 10 lbs. of liquid S O_2, sufficient moisture being present; (b) washing with 1-1000 solution of bichloride of mercury; for iron vessels either, for wooden vessels both methods are prescribed.

When the disinfection is for yellow fever or plague, a preliminary simultaneous fumigation by moist S O_2 is done for the purpose of destroying rats, vermin or mosquitoes. In the disinfection of cargo vessels infected with plague, after twelve hours' exposure to S O_2, the upper six-foot layer of cargo is removed during the day; the hold again fumigated at night, this process being continued until the entire cargo is discharged.

Living apartments, cabins and forecastle are disinfected by one of the following methods: (a) Sulphur dioxide 5%; (b) formaldehyde gas, using not less than ten ounces per 1000 cubic feet; (c) washing with bichloride of mercury 1-1000; formalin 5%, or carbolic acid 5%, preference being given to last for metals or polished woods. Forecastles, steerage, and compartments in bad sanitary condition, are disinfected by (a) sulphur followed by (b) a solution.

Small vessels with empty holds are best disinfected by moist S O_2, generated by burning sulphur in open pots set between decks or elevated above the bottom, in larger pans of water. The disinfection of such sailing vessels is no more like the disinfection of a huge, complicated system of holds, bunkers, ballast tanks, ventilators and living apartments, such as a big liner, than incising a boil is like a difficult brain operation.

The use of liquid burning sulphur in small pots, closed in cargo holds containing valuable cargo, is of course out of the question.

Upon the disinfecting hulk *Omaha* are two double end furnaces, in which sulphur is burned, not less than 5¼ pounds per 1000 cubic feet to be disinfected. S O_2, the product of this combustion, is led through a pipe to an iron tank or reser-

voir, whence the gas is forced through a 12-inch iron pipe, along the side of the hulk. At short intervals are reducing elbows, to which are coupled 6-inch flexible rubber hose, the other end of which is led aboard the infected vessel, well down toward the bottom of the hold. A small pipe carries steam necessary for formation of moist gas, into the hold. Forecastles, storerooms and similar small accessible places, are disinfected by a solution of glychochloroformol under pressure in an autoclave or by sulphur pots. Before closing the vessel, careful search should be made for hidden articles of clothing and possible stowaways. Effects ("dunnage") have been found in furnaces not in use, under coal, in ventilators, wrapped in sails—in fact, everywhere—and they are likely to be the effects of the sick or dead. Stowaways may be *anywhere*. Effects of the crew, carpets, bedding, etc., not already sent for disinfection, are now disinfected in a 16-foot, double jacketed chamber on the hulk, similar to the large ones at the station.

After the fumigation, the disinfection solution is forced by steam pumps from the tanks on the hulk, through hose led aboard the vessel, and empty holds, forecastles, etc., cleaned under pressure. Staterooms and cabin must be gone over by hand. The vessel is now mechanically, and from a quarantine standpoint, clean; she is "free from danger of conveying quarantinable disease"; her owners are, therefore, given the privilege of placing a crew aboard and putting her in commission, her old crew being held for observation.

Not all vessels quarantined should be, or are, subjected to such disinfection throughout. A case of smallpox, for instance, breaking out a few days after embarkation, was clearly infected ashore. Cargo holds, several hundred feet away and battened water tight since, for instance, leaving Shanghai, could scarcely be infected by such a case embarking at Yokohama.

Here the quarantine officer must use his own judgment, uninfluenced by ignorant or malicious criticism, or by the natural desire of the vessel's owners to avoid delay and expense, or by an unreasonable desire to be absolutely sure of a perfectly aseptic vessel. It is his duty to disinfect, when reasonable doubt exists after careful consideration.

Important and interesting as equipments for disinfection, isolation and detention are, the crucial test of the work of a quarantine station is the inspection of incoming vessels. The laws provide that vessels arriving at ports of the United States under the following conditions, shall be inspected by a quarantine officer prior to entry: (a) All vessels from foreign ports; (b) any vessel with sickness on board; (c) vessels from domestic ports where cholera, plague or yellow fever prevails, or where smallpox or typhus fever prevails in epidemic form; (d) vessels from ports suspected of infection with yellow fever, having entered a port north of the southern boundary of Maryland without disinfection, shall be subjected to a second inspection before entering any port south of said latitude during the quarantine season of such port.

Vessels arriving under the following conditions, shall be placed in quarantine: (a) With quarantinable disease on board, or having had such disease on board during the voyage; (b) any vessel which the quarantine officer considers infected; (c) relates to vessels from yellow fever ports during the open season, May 1st to November, arriving at ports south of Maryland, direct or via other ports.

The quarantinable diseases are cholera, yellow fever, smallpox, typhus fever, leprosy and plague. When vessels arrive with other communicable diseases, as scarlet fever or measles, local health authorities are notified.

Under the wise law of 1893, and the wise and broad minded administration of Surgeon-General Wyman, the inspection of vessels is now really begun at the port of departure. Any vessels clearing from a foreign port, for any place in the United States, must secure from the consular officer or from the medical officer, where such officer has been detailed by the President for that purpose, a bill of health, setting forth sanitary history and condition of said vessel, its cargo, passengers and crew. The President, in his discretion, is authorized to detail medical officers to serve in the office of the consul at any foreign port, for the purpose of furnishing information and making the inspections required before the giving of said bill of health.

Under this law, this service maintains medical officers at Calcutta, Hong Kong, Shanghai, Nagasaki, Kobe, and Yokohama; the quarantine officers at Manila and Honolulu acting in the same capacity. Such officers are directed to make such an examination of vessels, cargo, passengers, crew, personal effects of same, including manifests, food and water supply, the ascertainment of its relations with the shore, the manner of loading and possibilities of invasion by small animals, as will enable the quarantine officer here to determine if regulations have been complied with.

Steerage passengers and forecastle crews are bathed, their effects disinfected, and their temperatures taken before embarkation. Manifests of freight, especially food products, hides, etc., must be certified as inspected and passed. The anchorage ground for vessels before inspection is between a line from Alcatraz Island to Meiggs' Wharf, and the Golden Gate.

Boarding is done by two medical officers stationed upon the boarding steamer *George M.*

Sternberg, as soon as a vessel flying a yellow flag anchors. When transports or large liners arrive, as well as in the case of suspected vessels, the quarantine officer, four junior medical officers and a female inspector, go aboard. Temperatures or glandular examinations, or both, are taken of the personnel of vessels from plague or yellow fever ports; freight manifests are examined, baggage of steerage is looked at for certificates of medical officers, the general condition of the vessel as to mechanical cleanliness gone into, and a careful examination made of the source of food and water supply, especially if from cholera ports; the report of the vessel's surgeon, the bill of health and anything else pertinent to the inquiry. In addition to this careful inspection of every person and thing for quarantine, the quarantine officer is charged with the medical inspection of aliens for the Immigration Bureau of the Department of Commerce and Labor, and, as neither this bureau nor the transportation companies provide any other place, this inspection is done aboard ship.

Opened April 29, 1891, the first vessel treated was the *China,* which arrived on December 20th, 1891, with smallpox on board. No sanitary inspection or disinfection of vessels was done by the Federal authorities, these being made by the city quarantine officer who was appointed by the Governor. Neither the State nor the city had any quarantine buildings or modern appliances, and the station was used as the national and local quarantine by the desire of the State and local boards of health.

In 1892 the fumigating steamer *George M. Sternberg* was completed. In 1895 the Legislature of the State passed a joint resolution requesting the Federal government to assume entire control of the maritime quarantine service at the port of San Francisco, meaning the inspection of vessels in addition to the quarantine functions already performed. The Chamber of Commerce of San Francisco passed similar resolutions, and the steamer *George M. Sternberg* was put into commission as boarding steamer.

May 11, 1897, the duty of medical inspection of immigrants was assumed, and after a disagreeable controversy between the local quarantine officer and the commanding officer of this station, the latter was appointed by the President by virtue of the power given him by Section 3, of the Act of February 15, 1893, quarantine officer at the port of San Francisco, California. The following officers have been in command of the station:

Surgeons Preston H. Bailhache, until June 13, 1891; W. P. McIntosh, June 13, 1891, until May 2, 1892; D. A. Carmichael, May 2, 1892, until April 16, 1894; Passed Assistant Surgeons, J. H. Oakley, April 16, 1894, until June 8, 1894; C. T. Peckham, June 8, 1894, until March 2, 1896; M. J. Roseman, March 2, 1896, until December 6, 1898; Surgeon Brooks, December 6, 1898, until June 17, 1899; J. J. Kinyoun, June 17, 1899, until May 3, 1901; D. A. Carmichael, May 3, 1901, until January 2, 1902, when the writer became quarantine officer at the port of San Francisco.

A FEW ILLUSTRATIVE CASES OF DIPHTHERIA.*

By FRED GRANT BURROWS, A. M., M. D., San Francisco.

THE Board of Health of San Francisco has kept complete records of the cases of diphtheria that have occurred in that city since 1896. These records show that the disease is increasing; and that the greatest number of cases recorded in any one year occurred during the last fiscal year, 1901-1902. During that year there were 1357 cases with 204 deaths, or a death rate of 15%. During the six years covered by these records there were 4297 cases of diphtheria and 704 deaths, a death rate of 16.38%.

It is well known that both the morbidity and the mortality from diphtheria are universally greater during the cold winter months than during the summer. Under like conditions of treatment we should therefore expect more favorable results in this climate than in the severe climate of that part of the United States east of the Rocky Mountains. We have failed, however, to achieve as good results. The death rate from diphtheria is now greater in San Francisco than it is in New York, Boston or Chicago. Not only is this true, but the number of deaths is increasing here and decreasing there. There were more than three times as many deaths from diphtheria in San Francisco during the fiscal year 1901-1902 as there were during the year 1896-1897. Whereas the number of deaths from the same disease in the combined population of the five largest cities of the United States was considerably less in 1901 than it was in 1896. During 1901 there was one death from diphtheria in San Francisco for every 1680 of the living; and in the five cities above referred to there was only one death from the same disease for every 2,128 of the living. †

Statistics from all the large hospitals of Europe and the United States prove beyond any possibility of doubt that the death rate from diphtheria properly treated with antitoxin is very much less than it is from that disease treated without antitoxin.

†The combined population of New York, Chicago, Philadelphia, St. Louis and Boston in 1900 was 7,556,586; there were 3555 deaths from diphtheria in those cities in 1901. San Francisco had a population of 342,782 in 1900 and there were 204 deaths from diphtheria in that city during the fiscal year 1901-1902.

*Read at the Thirty-third Annual Meeting of ‹State Society, Santa Barbara, April 21-23, 1903.

The hospital death rate before antitoxin was used was over 45%. It has now been reduced in most large hospitals to less than 15%. It is known that diphtheria is caused by a specific organism which during its life processes eliminates a virulent toxin. This toxin is taken up by the blood and distributed throughout the body, where it produces poisonous and destructive effects. It is also known that this toxin is non-selective in action and may poison any tissue or destroy any organ; and that the general symptoms of the disease are due to the virulence of the toxin. Laboratory tests and clinical observations have proven that antitoxin has the power of completely neutralizing this toxin; but in order to save the tissues of the body from the destructive action of the toxin it must be neutralized early. In the treatment of diphtheria, therefore, the first aim of the physician should be to neutralize this toxin at the earliest possible moment. Abundant clinical experience has shown that antitoxin never produces harmful effects, and that it may be given in any amount. A single dose may be 6,000 units or 8,000 units. The paralyses, heart complications and albuminuria sometimes seen in those cases recovering after the use of antitoxin are not due to the antitoxin, but to the toxin that was not neutralized before it had time to injure the tissues.

I believe that under ideal condition it would be possible to save 99% of patients with uncomplicated diphtheria. The present contagious diseases department of the Boston City Hospital was opened in 1895. During the first five years of the existence of that department, more than 7,000 patients with diphtheria were treated in the wards, and more than 100 nurses, physicians and employes of the department contracted the disease. The infections of these hospital attaches were usually severe, but they all recovered, and they all recovered because they were treated at the very beginning of the disease with sufficient antitoxin. One hundred per cent of that series of more than 100 cases were saved. In the same hospital, in a much smaller department, 1,421 diphtheria patients were treated during the four years immediately preceding the advent of antitoxin, and two physicians, two nurses, and one orderly died from the disease contracted from these patients. Let me state these facts in another way. In a given hospital during a period of four years, only 1,421 cases of diphtheria were treated, and five members of the hospital staff died from the disease contracted from these patients. During another period of five years more than 7,000 cases of diphtheria were treated; and although many members of the staff contracted the disease, not one of them died. The only essential difference in the treatment of the members of the staff during these two periods was in the use of antitoxin during the second period.

Our knowledge of the effects of antitoxin and the proper methods of using it has been a matter of growth. The history of several attacks of diphtheria from which an orderly in the hospital above referred to suffered, will illustrate this point and seems convincing evidence.

Case 1, W. J. C.—An orderly in the diphtheretic wards. His first attack occurred Jan. 1899. He was given 2,000 unit doses antitoxin and received 37,000 units in 120 hours. He was sick in the hospital thirty days, but made a good recovery. His second attack occurred March, 1900. He was given 4,000 unit doses antitoxin and received 16,000 units in 48 hours. He was in the hospital four days, and made a good recovery. His third attack occurred in July, 1900. He was given two 5,000 unit doses early and was not really sick at all. He had learned from experience to recognize his symptoms early, and we had learned from experience to give antitoxin early and in large doses.

The history of an attack of diphtheria from which one of the house physicians of the above hospital suffered shows the results that may be obtained by early and vigorous use of antitoxin.

Case 2, Dr. A.—On duty in the diphtheria wards. On Dec. 5, 1899 his throat felt slightly sore. The next morning it was a little worse and there was a small patch of diphtheretic membrane on one tonsil. A diagnosis of diptheria was made and 4,000 units antitoxin given. At noon the patch was thicker and larger and the dose of antitoxin was repeated. By 6 P.M. the membrane had not begun to disappear and another 4,000 units of antitoxin was given. The throat was again examined at 11 P. M. and the false membrane did not seem to have grown larger. It was therefore thought that no more antitoxin would be needed. The next morning, however, it was found that the patch had enlarged and thickened; there was also a patch on the other tonsil and a film on the uvula. It was decided to give more antitoxin, and 4,000 units were given at 8 A. M. At noon of that day (the second of the disease) the throat looked much as it had in the morning, so another 4,000 units of antitoxin were given. By evening the throat seemed to be clearing. We were not willing to take any chances, so gave 4,000 units more. The patient had thus received 24,000 units in 36 hours. On the following day the throat cleared rapidly, became entirely clear on the fourth day of the disease, and the patient made a rapid and uneventful recovery. His temperature was never above 100°; his urine never contained albumen; his heart was not effected; and there was no post-diphtheretic paralysis.

This patient was a physician who had a severe infection contracted from his diphtheretic patients. In spite of large initial doses of antitoxin the disease spread rapidly, but was quickly controlled when sufficient antitoxin had been given to neutralize the toxin and render the conditions unfavorable for further growth and development of the diphtheria bacilli. There were no complications because the toxin was neutralized early, before it had time to affect the tissues. There were no severe constitutional disturbances

because the toxin was neutralized as it was produced. The patient was absent from duty only thirteen days, and was in the ward as a patient only ten days.

Another patient seen in private practice illustrates the advantages of early antitoxin treatment

Case 3—A child between two and three years old was seen in consultation in the evening of Dec. 8, 1902. The patient was first seen by the family physician at 11 P. M. the day before, and the history was that he had then been croupy about 24 hours; that is he had been croupy 48 hours when I saw him. I was called to perform intubation as the child had considerable dyspnea and was rapidly growing worse. He had already been given 3,000 units antitoxin. An examination showed that there was no nasal nor fauceal diphtheria, but considerable laryngeal stenosis, with paroxysms of coughing during which the dyspnea and cyanosis became marked. Phonation was still possible and the dyspnea was not extreme. Considering the dangers of accidents to an intubed patient situated as he was, it was decided to give more antitoxin and if possible avoid the operation. We gave 3,000 units then and visited him again at midnight prepared to operate if necessary. We found however that he was considerably better and had been sleeping quietly. He was again given 3,000 units of antitoxin and the expectant treatment continued. I did not see him again, but his physician reported him much better the next morning. In the afternoon, however, returning stenosis demanded more antitoxin and 2,000 units were given. From that time he made a rapid recovery. There is no doubt in the mind of this patient's physician or myself that with less vigorous antitoxin treatment, intubation with all its dangers and responsibilities would have been necessary.

Only those who have had actual experience with such cases can appreciate the difficulties of properly caring for intubation patients outside of a hospital. San Francisco, unfortunately, has no hospital properly equipped for their treatment.

Another patient from the hospital series illustrates what may sometimes be accomplished in the treatment of late and neglected cases:

Case 4, E. L.—A slender, frail young man, 18 years old, was admitted to the Boston City Hospital Dec. 8, 1899. He had been ill with diphtheria six days and had had no antitoxin. He was delirious and greatly prostrated. His pulse was soft, irregular and intermittent. His heart was dilated and there was a well marked systotic murmur heard over the greater part of the precordia. A thick diphtheretic membrane completely covered the tonsils, uvula, and soft palate, and extended onto the hard palate. There was an abundant dark, glairy, serous discharge from the nose, and diphtheretic membrane could be seen extending to the margins of both nostrils. The cervical glands were greatly enlarged, and the diphtheretic odor was so marked that a diagnosis could have been made in the dark. The patient seemed in an exceedingly critical condition, and it was not thought possible for him to live until morning. Up to this time 4,000 unit doses were the largest ever given in the hospital and, so far as I knew, the largest ever given anywhere. As this was a desperate case—such as was never known to recover without antitoxin—and as my experience with large doses of antitoxin had led me to believe thoroughly in such treatment, we gave him 6,000 units as an initial dose. He began to improve and was given 6,000 units every four hours until he had received 84,000 units—all in 78 hours. At the time of admission to the hospital he was delirious and refused to swallow. He was therefore fed and stimulated by rectum. He expelled his enemata, and it was necessary to compel him to retain them by applying an anal pad in such a way as to render this impossible. This method of alimentation had to be continued for three days. On the seventh day in the hospital, or the thirteenth day of the disease, the patient suffered from one of those attacks of extreme weakness or collapse so frequently seen in severe cases of diphtheria. Vigorous subcutaneous stimulation revived him and he continued to improve. At the time of admission to the hospital his urine contained albumen; but this disappeared in a couple of weeks and the patient was discharged well after 35 days in the hospital. I have not seen a patient more seriously ill from any disease, recover. His history seems to justify the opinion that it is never too late to give antitoxin, and that large doses should be given in severe cases. It also demonstrates the well-established fact that the cardiac disturbances and albuminuria are due to the toxin of diphtheria, for they were present before antitoxin was given.

The two following cases are of unusual interest and illustrate several points:

Case 5, N. C.—On Jan. 29, 1902, I was called to the home of a physician to see his child, a boy of five years of age. I was told that the child had been croupy three days, and had grown steadily worse. I found him suffering from marked laryneal stenosis. There was great dyspnea, considerable cyanosis and profuse perspiration. The child was aphonic, and had frequent attacks of coughing, the cough being brassy and paroxysmal in character. Respiratory effects caused retraction of the substernal and supraclavical spaces, and marked dilitation of the alae of the nose. In short, the respiratory efforts presented an exaggerated picture of those of an athlete after severe and prolonged exertion. No diphtheretic membrane could be seen in the throat or nose, and there was no nasal obstruction. As diphtheria laryngitis is the only disease of childhood leading to a gradual stenosis, a diagnosis of diphtheria was made, and as suffocation was imminent the child was intubed. The insertion of the tube afforded instant and complete relief. The breathing became easy, all the above symptoms disappeared and the child went to sleep. As he lay sleeping he seemed in perfect health, but the sad experience of the many physicians who treated diphtheria before 1894 warned us that without further treatment he would probably soon awake to the agonies of suffocation, and that his chances of ultimate recovery were less than thirteen in a hundred. The subsequent history of the patient proved these chances to have been pactically nil. We therefore began antitoxin treatment and gave him his first dose at 3 P. M. He received 3,000 units at 3 P. M., 3,000 units at 9 P. M., 3,000 units at 2 A. M. the next day, and 3,000 units at 8 A. M. At 9:45 A. M. the second day, Jan. 30th., his laryngeal tube became accluded and had to be removed. As he had difficulty in breathing without the tube it was again inserted, but gave no relief, so was at once removed, after which a membranous cast of the upper part of the trachea was coughed up. The patient then breathed freely without the tube and no more antitoxin was given until the evening, when returning dyspnea showed that the diphtheretic process was extending. It also showed that we had stopped giving antitoxin too soon. We now resumed the antitoxin treatment, and 3,000 units were given at 7:30 P. M. As the patient did not im-

prove, the dose was repeated at 11 P. M. and at 3 A. M. Jan. 31. By 6:30 A. M. the dyspnea became so great that the tube was again inserted. The insertion of the tube loosened more diphtheretic membrane from the air passages, which was coughed up. When the tube was again inserted the breathing was unimpeded. This second cast was very extensive, including part of the trachea, both primary bronchi and many secondary bronchi. On one side of the cast ten branches from as many small bronchi can be seen. This membrane showed that the inflammatory process had extended into the very center of the lungs. It also warned us that still more antitoxin was needed. He had already received seven 3,000 unit doses of antitoxin, which had caused the false membrane covering the mucosa of the air passages to be thrown off. We knew the mucosa of the air passages was inflamed. We knew that this inflamed mucosa was infected with thousands of the bacilli of diphtheria. We also knew that the conditions in this inflamed mucosa of the air passages was favorable for the growth and multiplication of the bacilli.

We determined if possible to neutralize the toxin that would be produced in their growth. Therefore we gave more antitoxin. We gave 3,000 units at 6:30 A. M., 3,000 units at 10:30 A. M., 3,000 units at 2:30 P. M., 3,000 units at 5:30 P. M., and 3,000 units at 9:30 P. M. That is to say, although he had already received 21,000 units, this five-year old child was given 18,000 more units of antitoxin in eighteen hours. At 4:30 P. M. of that same day, Jan. 31st., the laryngeal tube again became accluded and had to be removed, after which a piece of false membrane, evidently from part of the trachea, was coughed up. The patient then breathed easily and went without the tube until 7:30 A. M. the next day, Feb. 1st., when it was again needed, this time on account of swelling and edema of the larynx. The tube was now worn until 9:30 P. M. of the same day, when it had to be removed on account of partial acclusion with dry mucus. The patient then went without the tube for fifteen hours, when it was again demanded, at 12:30 noon, Feb. 2d., for the last time. It was finally removed at 7:45 P. M. Feb. 4th., or a little more than six days after it was first removed.

The last dose of antitoxin I have told you of was given at 9:30 P. M. Jan. 31st., by which time the patient had received 36,000 units. For reasons above given we were afraid to stop there and continued the treatment. On Feb. 1st. the patient was given four more doses of 3,000 units each at 2:15 A. M., 8 A. M., 12 noon, and 3 P. M. That is, we gave antitoxin until the character of the pulse, respiration and bronchial secretions indicated that no more was needed. To recapitulate. This five-year-old child was given 48,000 units antitoxin in 72 hours. He was intubed six times, and the tube was removed with the extractor three times; each of these nine operations was imperatively demanded. During this entire illness the temperature was never above 100, and was for the greater part of the time normal. The pulse was usually about 120, but during the night of Jan. 30th., when the diphtheretic process was so rapidly extending into the lungs, it was in the neighborhood of 140 and was an important indication for more antitoxin. The urine contained a slight trace of albumen for one or two days only. During the time the laryngeal tube was worn, the patient was not allowed to swallow food nor drink, but was fed by esophageal tube and by rectum. He was fed partially by rectum because the esophageal tube caused some vomiting. All rectal feedings were retained and assimilated. There were absolutely no complications and the recovery was rapid and uninterrupted.

This child had been critically ill. He had been in imminent danger of suffocation and in imminent danger from the virulent toxin of diphtheria. If there is any other disease of childhood that may cause a similar inflammatory condition of the air passages and lungs from which the patient will recover, I have yet to learn of that disease. If one patient ever recovered from such a diphtheretic infection without the use of antitoxin, his history has not been published.

Case 6, M. C.—The child whose history I have just read has a sister two years his senior. She was then seven years old. She was said to have had a cold for a week or two before I saw her brother, and the cold was thought peculiar inasmuch as the nasal discharge seemed to come from only one nostril. An examination showed a pale, delicate-looking child with a rapid pulse and a considerable dark, glairy, serous discharge from one nostril. Further examination showed that nasal cavity to contain a small piece of diphtheretic membrane. Cultures taken from the nose gave an abundant growth of diphtheria bacilli The patient was given 3,000 units antitoxin and made a good recovery. She had not been considered ill, but had had this nasal discharge for a week or ten days. There is no doubt that her brother contracted the disease from her. Her infection was a comparatively mild one of the nasal type, and she had been running about in a physician's family with the disease unrecognized. The association of these two cases emphasizes the importance of recognizing the mild cases, and especially the cases of nasal diphtheria. Although hers was, so far as it had gone, a mild case, her brother contracted a most malignant form of the disease from her. She might have recovered without treatment, but the disease might have lighted up at any time and proved fatal; or she might have continued with the nasal discharge for weeks or months and infected scores of other children. These two cases are of unusual importance, for aside from the fact that they are of medical interest the patients are the children of an eminent physician. Their father is an authority on some medical subjects, but he no longer treats children's diseases and some of the recent literature on diphtheria had escaped his attention. He said he had never seen a case of nasal diphtheria to recognize it as such, and he thought his boy had a bad cold and acute laryngitis.

I wish to emphasize the fact that nasal diphtheria is a common form of the disease. A single unrecognized case of nasal diphtheria may be the source of a severe epidemic. This is especially true among school children, and inmates of orphanages and children's homes. I also wish to emphasize the fact that the most severe form of the disease may be contracted from a so-called mild attack.

I wish further to emphasize the fact that progressive laryngeal stenosis in children is always caused by a diphtheretic inflammation of the larynx. So-called membranous croup is always diphtheria. Spasmodic croup or acute laryngitis is a disease of sudden onset. It is usually accompanied by considerable fever and the pulse is

not disproportionately accelerated. The symptom complex is entirely different.

I have presented a detailed account of these few cases of diphtheria hoping to show the importance of early and vigorous antitoxin treatment. I have also tried to show the importance of recognizing the nasal type of the disease. It is possible to have an infection of the anterior nasal cavity run a long and subacute course. Such patients are a menace to the health of the community, and should be promptly isolated and treated.

In the treatment of the disease, I have considered only the use of antitoxin. If the toxin is neutralized as it is produced, there remains but little to do. The value of alcoholic stimulation in severe and neglected cases is so universally recognized that further emphasis seems unnecessary. Local treatment I believe to be worse than useless. The exhibition of antiseptics and corrosives usually results in larger areas of excoriated mucosa, which are promptly invaded by the bacteria of the disease. Moreover, the tissues of an individual suffering from diphtheretic intoxication are not in a condition to withstand the strain put upon them by the resistive efforts usually put forth against local applications.

I have shown that the present death rate from diphtheria is greater in California than elsewhere. This high death rate cannot be attributed to our climate nor to the unsanitary condition of our cities. Our climate is mild; our cities are not overcrowded; and there is no extreme poverty in our midst.

It is our duty to lower this high death rate. We can do it by recognizing the disease early in each infected individual, isolating each patient and giving antitoxin freely. Let me beg you to accept this responsibility. Give antitoxin early. Give it in large doses. Repeat the doses often. Do not stop giving antitoxin until the toxin of the disease is completely neutralized.

DISCUSSION.

Dr. Geo. L. Cole, Los Angeles—The cases which Dr. Burrows reported were exceedingly interesting. We should be guided somewhat by the symptoms and not alone by the pathologist's report. I wish also to emphasize the early use of antitoxin. My own faith in antitoxin and my ideas regarding the late use of it have changed within the last few years. There is no question about the efficacy of large doses; but after the 5th or 6th day I question whether we do get as much good as we expected. One very interesting thing with regard to the increased diphtheria rate in San Francisco, it has grown more rapidly in the last 3 or 4 years than it did for 5 years previously. This has been noticed in Los Angeles. In San Francisco you have been turning up streets and doing other city work. In Los Angeles several years ago, when growth was rapid and in that portion where there was constant grading and turning up of the earth, diphtheria was pretty abundant. In talking to Dr. Powers he said that after every very severe windstorm, lasting a couple of days, he had noticed there was an increase in the number of cases of diphtheria. The winds coming down from the mountains were followed with excessive diphtheria. If I were to take exception to any one thing, it would be that local treatment was worse than useless. I cannot think this. I agree with him that in small children where, to make local treatment you have a struggle with the child, this is true; but I do not believe when we consider the possibilities of our antitoxin in some cases that we are justified in leaving off all local treatment. Another thing has occurred to me recently which I wish to emphasize. We know that the manufacturers put up large batches of antitoxin and if it does not quite come up to the standard, and they are a little short, will they absolutely destroy this antitoxin? Is it not possible that this antitoxin may be insufficient in some way? Therefore it has occurred to me that instead of going back to the same antitoxin, I should get another lot. There is one more point with regard to the feeling that I know exists in the profession, that all cases of diphtheria can be cured. I believe there are some cases of diphtheria that will die in spite of all antitoxin. I knew of a case recently where a woman had lost her only child. Her heart was broken. She went into a distant city and someone asked her why she was dressed in black. She said she had lost a child with diphtheria. The physician told her there was no need for the child to have died with the proper doses of antitoxin. We should never say that all cases of diphtheria can be cured. Give a child very large doses of antitoxin under the best of circumstances and sooner or later there will be recorded cases which it was impossible to cure.

Dr. J. Henry Barbat, San Francisco—It is pretty gratifying to hear these papers on diphtheria and on antitoxin. In 1892 I read a paper on this subject and I stated my belief that we would shortly be treating diphtheria with antitoxin. There was no attention paid to it. Dr. Cole has not expressed the reason for the increased mortality rate of diphtheria in San Francisco. The reason is that the so-called family doctor, the man who has no time to attend to medical meetings, cannot read his journal, does not know anything new, hears somebody talk about antitoxin, and thinks he will try a little antitoxin; he gives 500 units to a child who needs 10,000 and the next day the child dies. They are the men who treat the large majority of sick children in San Francisco and possibly in Los Angeles. That is something we do not know how to get around. They will have to die out; I do not see any other remedy.

Dr. George H. Evans, San Francisco—It seems to me that there are two points of major importance. They are the recognition of diphtheria and the administration of sufficiently large doses of antitoxin to cure the disease. I have had some little experience in this disease for a period of 12 years and have had occasion to compile statistics from boards of health. I presented the report of a number of cases which I culled from S. F. Board of Health statistics. There were a number of cases in which the mortality rate was a little less than 13% and I also remember this fact that in every fatal case the patient had either been found moribund or antitoxin had been given in ridiculously small doses. One case was of the laryngeal type and only 500 units of antitoxin had been given. We must give this fearlessly. I do not agree with Dr. Maher in giving such small doses. Dr. Burrows will bear me out in this matter. As evidence of the fact that these small doses are insufficient I would

like to bring up an illustration. Last week I was called in to see a patient early in the evening. I found the child had been to Sunday school that morning, had complained of not being well for 2 or 3 days, had come home that day and had developed a high temperature with delirium, swelling of the neck, and for the first time complained of sore throat. I found a child of nine years of age with both tonsils and a portion of the anterior pillars of the fauces covered with a membrane. That child immediately received 3000 units of antitoxin. As the child was nauseated no other treatment was given. I saw the child the next morning, and while the dose had spread the membrane and had been sufficient to prevent death, the child was still markedly toxemic. I immediately administered 6000 units more and that afternoon convalescence had commenced. It is a difficult matter to get at the proper dose of this drug.

Dr. J. Maher, Oakland—If there is anything which Dr. Burrow's paper emphasizes in particular it is the importance of meeting the toxins with antitoxin in sufficient quantity to neutralize them. That is what his paper has proven beyond all other things. I have in my paper confined myself to established facts. When we get enough of such experiments as Dr. Burrow's, then we can establish them as facts. I go a long way in agreeing with him in regard to the dose. I do not mean to say when I mention 1500 units that we begin all cases with that amount. I was simply making reference to the broad range that we have in the different cases. I have used myself 2500 or 3000 units with very young children. In some cases I have used 5000 or 6000 at the first dose. I think that one generally accepted fact is that after the administration of antitoxin, local treatment should not be abandoned.

Dr. Burrows—I lived 2 years in a diphtheria hospital in New York and we had 250 cases most of the time. I never had it and never took any antitoxin. I was a youngster and gave very large doses although many critics said that they would kill the patient. I do not believe in giving large doses to everybody. If one dose is sufficient, all right, otherwise give another. In ideal conditions in uncomplicated cases, 99% of patients can be saved. Patients do not get antitoxin early enough. Sometimes the onset is exceedingly quick. Not all of the increased death rate can be attributed to the practitioner. In the case reported, this physician's boy almost died. He was sick three days before he recognized it. I once had a case of a child of a physician and I lived 6 days and 6 nights under the same roof, treating and watching that child. The father objected to giving any more antitoxin than was necessary, and asked if it were necessary every time a dose was given. We should try to neutralize the toxin. As far as pseudo-diphtheria is concerned, I do not know anything about it. All cases which have membranes covering the throat I call diphtheria and I treat them as such. If there is a thick membrane this may contain millions of bacteria. The mucosa underneath may contain as many, but the swab does not remove them. In diphtheric inflammation you find that the chronic process extends for a considerable distance into the mucosa. As Dr. Barbat said, we often meet doctors who know nothing about antitoxin or its use.

The Colorado State Medical Society is considering the establishment of its own journal, to take the place of the annual volume of Transactions it has hitherto published. At its last meeting the publication in journal form was strongly advocated; and a committee has been appointed to submit plans and estimates for such a journal at the meeting of the Society to be held October 6 and 7, 1903.

ABDOMINAL DRAINAGE.*

By STANLEY STILLMAN, M. D., San Francisco.

THE present paper is presented not because the writer has any new theories to advance on the subject of abdominal drainage, but because the general views and practice regarding it have changed so greatly in the past few years, that it seems well to submit it to you for consideration and discussion. It is my intention, and I consider it my duty, to contribute to the subject the results of my own experience, which if not great, has been varied and may add something to the weight of authority which is accumulating on this subject. There is not time to present anything like a complete history and review of the subject in the limits of the present paper, and I shall not burden you with statistics, though at some future time I may consider it my duty to do so.

As late as seven or eight years ago it was the custom to use drainage in the great majority of cases after intraabdominal operations, and the rule was, whenever in doubt, to use drainage. The general indications were: *First,* any soiling of the peritoneum from rupture of pus tubes or cysts; *Second,* oozing from raw surfaces; *Third,* after most cases of intestinal suture; *Fourth,* when there was persistent capillary bleeding or when secondary hemorrhage was feared, particularly when large pedicles were tied with the Staffordshire knot, then in vogue; *Fifth,* in cases of tubercular peritonitis; *Sixth,* in diffuse peritonitis, septic or otherwise, on general principles, as applied to any wound the lips of which were closed.

It was known that the peritoneum was capable of absorbing immense quantities of fluids, and that it was able to manage, and finally dispose of, considerable sized masses of aseptic substances; but it was not known, and still is not by many, that if its function and vitality be not interfered with, it is capable of managing and disposing of considerable quantities of septic fluid also, as has been repeatedly observed clinically and proved experimentally. Of course, the variety and virulence of the micro-organism has much to do with this. There are many cases of peritonitis that are rapidly fatal; but many more will recover if not drained than if they are. Of this, I shall speak more fully later on. I would like to consider these indications for drainage in order, and speak finally of its use when peritonitis is already more or less advanced.

First, let us consider those cases in which there has been actual soiling of more or less of the peritoneum by fluids from cysts, old pus tubes, etc. In the first place, the contents of these pus tubes is almost always sterile. For the past five years I have had cultures and cover glass preparations made of all such fluids, and while often micro-

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

organisms are present in the cover-glass preparation, they very seldom show any growth on the common culture media. Formerly I always drained such cases. Now, by careful protection of the surrounding parts with abundance of gauze before attempting the removal of a diseased tube, I am not disturbed should it be ruptured, nor do I now take the time and pains to avoid such rupture, as I used to, fearing more the shock to the patient and damage to the peritoneum from prolonged exposure and handling, than the danger of infection from the contents of the tube or cyst. Should such soiling have occurred, I carefully remove the fluid with sponges, mop the surface off thoroughly with salt solution, and proceed as though the rupture had not occurred, finally closing without drainage. I avoid antiseptic solutions on account of their effect on the endothelium of the peritoneum, and a drain for reasons hereafter to be mentioned. What I am particular about is the careful removal of all blood clots and particles and shreds of devitalized tissue, the arrest of oozing, with temporary packing and the papuelin if necessary, and the covering of raw surfaces with omentum before closing; and I am not afraid that the omentum or the uninjured surface of the intestines will handle any infection that may be present. Should the case be one of an acute type, (and I am very loath to operate in that stage, by the way) the danger is vastly greater, and of course the greater, the more virulent the organism; but the peritoneum will handle the infection better than will the drain.

Second—So far as oozing from raw surface is concerned, it can be stopped by temporary packing or the cautery, in most cases, and if it continues is less to be feared without drainage than with it; for while the drain will stop oozing, infection is apt to follow its track, particularly if much bleeding follows its removal, as is often the case.

Third—As to the third indication, I think that very few surgeons to-day think of using drainage through fear of secondary hemorrhage. With proper technique in the matter of ligating, and if all raw surfaces in the broad ligaments, mesentery and elsewhere are covered by suturing the peritoneum properly over them, there need never be a drain used.

Fourth—After intestinal suturing the drain should never be employed, except in those cases where the suturing is known to be faulty and unsatisfactory, and is expected to give way, in which case the use of a drain is imperative. I do not recall having lost a case of intestinal suturing from peritonitis since I stopped using drainage afterwards, about five years ago. Previously I usually inserted a gauze drain and generally lost my patient between the sixth and the eighth day. Naturally an improved technique has had something to do with this as well as the omission of the drain. Still, I abandoned the drain because of my conviction that it was due to its use that infection occurred in several cases, and that leakage occurred in others due to its removal. and since ceasing to use it in these cases, I have not, as I have said, lost a patient from leakage or infection at the point of suture.

Fifth—As regards tubercular peritonitis, I have also ceased to use the drain in these cases. The old idea was to starve the process by continuous drainage. The present idea is the admission of air, (that is, oxygen), as well as the removal of the fluid. I have had persistent tubercular fistulæ and hernias follow operation in the cases I drained, after the patients were well of the tubercular peritonitis. When I finally had a case of fatal septic peritonitis supervene six weeks after the drain was removed, I ceased using it in these cases altogether, and the results have been better, for the patients have all recovered, so far as I am aware, though in one case I opened the abdomen three times, and there has been no return of the symptoms after a year and a half. From the foregoing, it may be seen that of these five conditions that were considered indications for drainage six or eight years ago, not one of them is considered, in my own practice, sufficient to call for the insertion of a drain of any form into the abdominal cavity, and my judgment is that those patients who recovered when drainage was used, recovered in spite of the drain, and not because of it. The objections to the drain are many and obvious to all. Briefly, the drain almost invariably becomes infected before removal, and through it micro-organisms reach blood clots and devitalized shreds of tissue, or fluids, that were previously sterile. Owing to the damage done by its removal, infection may extend with fatal consequences, as has happened in my experience, in cases that were originally clean; without commenting on delayed healing, prolonged suppuration or secondary hemorrhage, cause not prevented, by the drain. When any general soiling or infection of the peritoneum has occurred, drainage is absolutely useless, because, as a drain, its function ceases in a few hours in consequence of the formation of lymph around it, which the irritation of its presence causes.

But the great overruling, all important objection is, that the idea is all wrong. The idea that the peritoneal cavity can be drained, as the pleural cavity or the knee-joint can be, is wrong anatomically and impossible practically, no matter how many or what kinds of drains be inserted, and more than that, the principle is wrong physiologically as pointed out by Clark, in Vol. VII, *John Hopkins Hosp. Reports* and *University of Pennsylvania Med. Bulletin*, Nov. 1901. Its application interferes seriously with the function

the normal peritoneum has of draining itself, and protecting itself and the general system, even when very considerable quantities of septic fluids and organisms are injected into it.

Sixth—Coming finally to cases in which infection has actually occurred and local or general peritonitis is present, we will consider first, localized conditions. In all localized walled-off collections of pus within the abdomen, I use a drain after carefully evacuating and washing out the abscess. In these cases the wall of lymph around the collection prevents infection of the general peritoneum and equally prevents the general peritoneum from acting physiologically, hence these abscesses are to be treated as any other abscesses. If sufficient skill and patience be used, their contents may be evacuated without soiling either the wound or the surrounding intestines. The drain may often be brought out through the vagina, rectum or flank in such a way that the original abdominal wound may be closed at once, after arranging the omentum over the opening that has been made between the abscess and the general peritoneal cavity. If this cannot be done, I employ a Mikulicz drain, filling the bottom of the bag which occupies the interior of the abscess pretty full with a long strip of gauze, but I leave as little as possible between the lips of the wound. The wound is closed quite tightly around the drain. The interior packing is partly removed after twenty-four hours and entirely after forty-eight hours. The bag is not removed until it is loosened by the suppuration and comes away without causing pain or bleeding, usually about the sixth or seventh day. Two rubber tubes, side by side, are inserted on its removal, and usually the opening in the wound is just sufficient to admit them. These of course, are rapidly shortened and removed. In the rectum the self-retaining T drain of rubber is used, and in the vagina either the same or a gauze drain in the form of a long strip. The gauze in all these cases is simple sterilized gauze. When a diseased organ, as the appendix, forms part of the wall of such an abscess, I do not generally remove it at the time of the opening of the abscess, unless the quantity of pus be small, although I am to a great extent guided in this by the character of pus and other circumstances attending each individual case.

The great danger of general septic peritonitis lies in the existence of a focus from which is furnished a continuous supply of organisms and toxins, and our first duty is to eliminate such a source of supply, whether it be a gangrenous or perforated intestine, an infected blood clot or an abscess in the abdominal wall communicating with the peritoneum. If the infection in these cases be a streptococcus infection, a rapidly fatal peritonitis is almost sure to occur, whatever is done. The staphylococcus, either white or yellow, is also a very dangerous organism, but I have been surprised to find that they are rather infrequently met with in intraabdominal abscesses or fluids. The colon bacillus is, of course, most frequent, but the pneumococcus, often in pure culture, I have found very frequently. These latter germs are not so virulent, and I have seen a number of patients with general peritonitis in which they were present, recover. Now it is in cases in which general peritonitis has started, a greater or less area of peritoneum is reddened and thickened, and there is a considerable amount of fluid present in the pelvis, or diffused over the surface of the bowel, that the question of drainage is really to be considered. Formerly it was my practice to always drain such cases, frequently through several different incisions; but after finding from cultures that the fluid, often quite creamy, was generally sterile, I gradually dispensed with it and found that the patients recovered more surely, and with almost none of the distressing complications that so often attended the use of the drain.

A diseased appendix is by far the most frequent cause of septic peritonitis, which may start, as is known, without any perceptible perforation and receive constant additions of new organisms from the interior of the appendix. In cases of peritonitis following appendicitis, if on opening the abdomen I find the appendix free, or practically so, I remove it; then if the peritonitis has not progressed far, I close the abdomen without drainage, after wiping very gently the region where the appendix lay, and also the surrounding region, with sterile salt solution, or sometimes with weak carbolic solution. If there is, in addition to the commencing peritonitis, a mass of adhesions containing pus and the diseased appendix, I evacuate the abscess, and generally remove the appendix regardless of adhesions, for they have proved inadequate. The more or less abundant peritoneal fluid is removed with sponges, as gently but as thoroughly as possible, and if the abscess is large, and the peritonitis limited or moderate, I use a large gauze drain at the site of the abscess, as described above, leaving the general peritoneum to take care of itself. When there have been little or no adhesions formed, but there is extensive general peritonitis, or when the free fluid in the peritoneum has a distinctly foetid odor, I first remove the appendix and then wash out the abdominal cavity very thoroughly with warm salt solution, and use no drain, even at the site of the appendix, but close the abdomen tightly, trusting to the ability of the peritoneum to handle the diffuse infection in its own way; and I try to avoid embarrassing or impeding the natural drainage by

inserting masses of gauze, tubes, or anything else around which adhesions may form.

The limits of this paper do not permit me to discuss the treatment of peritonitis in general, nor consider Ochsner's plan of not operating at all in septic peritonitis, nor the postural treatment of Clark and Fowler. But from my own experience, so far as the drain is concerned, I would limit its use after intraperitoneal operations to these cases: 1st, in which there are single or multiple walled-off collections of pus; 2d, in which necrotic tissue must be left behind within the peritoneum; 3d, in which intestine is seriously damaged or the suturing of which is known to be faulty and almost sure to give way.

DISCUSSION.

Dr. T. W. Huntington, San Francisco—I want, in opening this discussion, to express my very high appreciation of this paper. Five years ago had such a paper been presented it would have met with a feeling of hesitancy. I think we have arrived at a point where such a procedure will be acceptable to the large majority and will be adopted by the large proportion. I think that while few have so far adopted this plan, most surgeons are leaning in that direction. If we can rule out those cases in which abdominal drainage is necessary, we shall find that abdominal drainage will succeed. There are two factors encountered in dealing with any surgical case. First, that represented by X, the patient; second, that represented by Y, the personal equation of the operator. The first is the more important. Upon the personal equation of the patient must depend the operator. If we find a patient who is willing, but has not the ordinary amount of resistance, the matter should be discussed more seriously than with the average. On the other hand, an enormous responsibility rests upon the shoulders of the operator when he closes a wound in which there is any abdominal infection.

It has been the experience of most of us to see a bit of bowel denuded in liberating it from some other coil. The moment you uncover it from its peritoneum you then expose an area which may become a focus of infection. If, on the other hand, with a knife blade you go step by step, cautiously dividing the little adhesive bands that join, and if where we have an adhesive band acting as a constricting band it can be lifted carefully up, tied, and then divided, leaving the coat of the intestine intact, we have accomplished very much and are rid of the necessity of abdominal drainage. The reader alluded to the dangers of removal for abdominal drainage. In a case which had gone on very favorably for 5 days and in which there was diffuse septic peritonitis, I was unwise in attempting to remove the Mikulicz sac at the end of the 5th day before it was softened by exudate. I loosened up the pack and the surface of the bowel at once bled a little. It looked unpromising and the patient went on to immediate chill; death followed in 48 or 72 hours. Had I been wise enough to have left the drain without any thought at all of its removal for 48 hours I believe that patient might have recovered. The inability of the surgeon to drain the peritoneal cavity in the presence of diffuse infecton I think has been dealt upon sufficiently.

Dr. E. E. Kelly, San Francisco—I think there is one point which ought to have been mentioned and that is the particular part of the peritoneum which is to be drained. Robinson has proved that the infection in the upper portion of the abdominal cavity is much more serious than infection in the lower portion. Experiments which I think he made on animals proved very conclusively to his own mind that the fatality of infection is very much more rapid in the upper than in the lower portions. Where there is a general septic infection there can be very little danger from drainage. I believe we are at the point of a better understanding of when drainage is necessary and when it is not. That is the most difficult question.

Dr. Emmet Rixford, San Francisco—The idea that the general peritoneum cannot be drained is not a new one. It was advanced by Olshausen long ago. But it has taken a long time for it to be generally accepted. We have recently entered upon a new era in abdominal surgery. We have discovered that the peritoneum is the surgeon's best friend. It will remain our friend as long as we refrain from abusing it. This fact is definitely admitted by most surgeons, and yet men will operate in the midst of an advancing peritonitis, thereby destroying what resistance there is, destroying the peristalsis of the bowel by mechanical irritation. They will go on opening localized abscesses across the sound peritoneum and hunting around with the exploring finger, and thereby spread the infection. They will go on flushing such pus cavities, still further spreading the infectious material over the abdominal cavity with the idea that the peritoneum will be better able to handle it. In my opinion, this is all wrong. Localized abscesses ought never to be opened across the healthy peritoneum unless ample provision is made by packing to prevent the pus from reaching the peritoneum; it is a fault of personal technique if peritonitis follows the opening of localized abscesses. The work of Ochsuer of Chicago is now the subject of great discussion all over the surgical world, and there is much to be said in favor of his position. If you operate in the presence of an advancing peritonitis you destroy the resistance which still remains. If you leave the thing alone, nature will do something towards destroying the infectious material. You cannot remove all the bacteria from an infected peritoneum and your efforts to do so will cause paralysis of the bowel and do more harm than good. If the localized abscess be in the pelvis in the female it can be opened through the vagina. In the male the abscess cavity can be opened just as readily through the rectum. It is nature's method of evacuating abscesses into a hollow viscus. Personally, I have operated in five such cases, putting in permanent T drains with no uncomfortable result to the patient. In some cases I have closed the abdomen and then gone in through the rectum with a blunt dilating instrument. The matter of gunshot wounds has not been mentioned. That is another point for debate. A gunshot wound of the abdomen is almost necessarily infectious. It is a case of acute infection. It is not the same thing as infection from old pus poured into the peritoneum. In old pus the bacteria are dead, but in a gunshot wound you have very likely injury to the intestine or stomach or bladder. Pieces of clothing are carried in. There is no time to make cultures nor to determine whether the bacteria present are in virulent culture or not. In these cases it is vastly better to make drainage. The question is where to make it. If the wound is in the upper part there is no question that the drainage should be made through the posterior wall deep down in the flanks.

Dr. A. S. Lobengier, Los Angeles—The reader of this paper has given us principles which unquestionably represent the best surgical treatment in this country. It seems to me that we are to-day very much nearer a rational solution than before. Undoubtedly the region of the right hypochondrium represents a field

in which drainage will have to be considered as important for infectious and gangrenous conditions. The pelvis can be approached and drained more easily than the region of the gall bladder and pancreas. Drainage in the average case is not necessary; I feel that it has been the cause in many cases of the untoward result. I want to urge against the common use of the Mikulicz drain. It has a very limited use. A drain can be improvised from gutta percha tissue, using the rubber tissue as a substitute. In this way you can get the best area of drainage with the least adhesions, and you can remove a drain of that kind in 24 hours without any damage and without any fear of irritation to the intestine and peritoneum.

Dr. J. Rosenstirn, San Francisco—While modern surgery is fully in sympathy with the principles advanced by Dr. Stillman, I believe there are some exceptions which he has not mentioned to-day, where even a Mikulicz drain may be needed. Some cases do not always yield to such measures as Dr. Stillman has mentioned. There are certain changes in the blood, diathetic, in very severe icteric patients, where capillary hemorrhages do not yield to pressure, adrenalin or similar measures. I have had to fight in several cases with such persistent hemorrhages, and the only thing I found was pressure by Mikulicz drain. In the removal of the Mikulicz drain, as laid down by the originator, no force should be applied. Relying upon the adhesions made within the 4 or 5 days, I try to remove it with salt solution irrigation. That is, every day I have saline solution poured on the Mikulicz drain and if there is resistance I pull; with these measures I am able to remove the drain. Another place in the peritoneum where drainage, I think, is necessary is in subphrenic abscesses. If you cut in on such an abscess through the upper part of the diaphragm after shutting off the pleuritic cavity, how will you omit drainage after you have opened the abscess?

Dr. W. S. Porter, Oakland—My personal experience is in support of Dr. Stillman. I have seen many of the class of wounds such as Dr. Stillman describes.

Dr. O. O. Witherbee, Los Angeles—What I wish to say is simply what we all would corroborate; it is beyond any surgeon to tell just when and when not to use a drain. I have closed with and without drainage. I agree with the speaker that in a larger percentage of cases closing without drainage gives very excellent results. I have closed the peritoneal cavity without drainage, feeling that my patient would do as well as the average patient and had develop within 12 or 18 hours a temperature. I have taken a pair of forceps, passed them into the incision and had a gush of fluid spurt from the opening. I have inserted a small strip of gauze and had that patient do exceedingly well after this fluid had escaped which it was evidently trying to do. We cannot tell every time when to use and when not to use drainage. If a great quantity of gauze is put into the abdominal cavity and pulled out with force it is a huge mistake. We should use a very slender strip and wait until the parts are willing to release it.

Dr. C. M. Cooper, San Francisco—I would like to ask Dr. Stillman regarding the posterior drain, in what cases he uses it, and if he uses posterior drainage after operating upon a case of acute infection?

Dr. Stillman—The discussion has taken a wider range than I have taken in my paper. It is impossible to cover all this ground in one paper. There is but one idea in the paper and that is that the peritoneum, in combatting with mechanical or chemical irritation will drain itself and will dispose of microorganisms and fluids which are not too septic and too virulent. In cases in which the temperature rises suddenly and on culture show streptococcus infection, nothing would save the patient. We do not drain so much as we used to do. If you have a reasonable excuse for leaving out the drain, do it. A subphrenic abscess, that is an abscess in itself, localized, a pancreatic cyst, a cyst of the pelvis, etc., is something to be drained as any abscess is drained. No one uses a Mikulicz drain if he can use anything else. Where a little, slender drain is used, it might be left out. I am only giving you my experience and am asking your opinions. As far as the gall bladder is concerned it is well pointed out that drainage is needed there. The natural drainage of the abdomen is toward the diaphragm. In order to prevent peritonitis drain toward the diaphragm. The dangerous part of the peritoneum is the upper part next to the diaphragm. If you have localized collections of pus inside or outside of the gall bladder, drain as you would in other collections of pus; where you remove the gall bladder without soiling the surrounding part, close it up. As to gunshot wounds I would treat by washing out, sewing up, and leaving alone unless I feared the wall might be infected. How many have recovered on the battlefield without any treatment at all!

The Reed Memorial Fund—The Committees appointed for the purpose by the American Medical Association, the American Association for the Advancement of Science, and the Congress of American Physicians and Surgeons, met August 15 in Bar Harbor, together with friends of the late Major Reed, M. D., U. S. A. Representative men were present from different parts of the country, and letters were received from various members of committees already appointed to promote the collection of a memorial fund in grateful commemoration of Dr. Reed's services in connection with yellow fever. Important suggestions were presented from President Eliot, Dr. W. W. Keen, Prof. J. W. Mallet and others. Dr. Daniel C. Gilman, chairman of a committee appointed by the American Association for the Advancement of Science, presided, and Dr. Stuart Paton acted as secretary. Among those who took part in the conference were Dr. W. H. Welch of Baltimore, Dr. Janeway of New York, Dr. Abbott of Philadelphia, Dr. Herter of New York, Dr. Parker of Chicago, Dr. Putnam of Buffalo, Dr. Fremont Smith of Bar Harbor and Dr. Sajous of Philadelphia, and beside these medical gentlemen, Bishop Lawrence of Massachusetts and Messrs. Morris K. Jesup, president of the New York Chamber of Commerce; John S. Kennedy, president of the Presbyterian Hospital of New York, and William J. Schiffelin of New York. It was decided that an effort should be made to raise a memorial fund of $25,000 for Dr. Reed's widow.

Hypnotism as Anesthetic for Major Operations—The successful amputation of a limb under hypnotism is reported (*The Lancet*, London, August 22) in a patient suffering from necrosis of the bone and severe ulceration of the leg. In a previous operation the patient bore the anesthetic badly and hence wished to be relieved of the necessity of taking another. Hypnotism was used as a last resort. The operator refused to work unless the means for anesthesia were at hand, but fortunately their use was not required. The patient went through the operation successfully and the temperature at no time was above normal. Recovery was uneventful except for a slight hemorrhage and sloughing of a portion of the flap, which was not accounted for. While we believe that hypnotism as a therapeutic remedy has long passed its heyday, its occasional use will doubtless still be heard from.—*Jour. A. M. A.*

REPORTS OF MEDICAL SOCIETY MEETINGS.

California Academy of Medicine.

Abstract of a preliminary report of a case of Bone Filling, by Thos. W. Huntington, M. D., at the meeting of the California Academy of Medicine, Aug. 25, 1903.

The patient was a male aged 20, who for two months had suffered from a subacute osteomyelitis of carpal end of right radius. Symptoms present were pain, swelling, tenderness and almost complete suspension of function of wrist, hand and fingers.

The bone was opened over the area shown by the X-Ray to be affected. A cavity containing about two drachms of pus was emptied and carefully sterilized. The cavity was then packed with granular calcined bone powder and the wound closed. A small amount of the filling extruded and remained buried beneath the soft tissues. This caused pressure necessitating removal of the skin sutures. The patient was exhibited on the sixteenth day after operation, showing a well-healed wound. Pain and tenderness had disappeared and joint and hand function fully restored.

Reference was made to the literature bearing upon this method of treatment of bony defects; to the work done by Dr. W. I. Terry in a similar direction, also to the published cases of Dr. Julius Rosenstirn in which plaster of paris was employed for the purpose of supplying bone defects.

The regular meeting of the Academy for September was held on the evening of the 22d. Dr. W. W. Kerr presented a patient, German, miner by occupation, 40 years of age, who had Hodgkin's disease. He had had gonorrhea and more recently syphilis. Glands in the various triangles began to enlarge some five years ago. The glandular enlargement was very general. The liver and spleen were enlarged and somewhat tender. Spasmodic pains at night were very severe and were at first relieved with hypodermatics of 1-100th of a grain of nitroglycerin. This caused severe headaches and was discontinued. Potassium iodid was used and occasionally mixed treatment; red corpuscles ranged from about 2,000,000 to nearly 3,000,000; there was no leulosytosis. Methyl blue was substituted for nitroglycerin and relieved the pain without producing the headaches. Dr. Kerr also exhibited a patient who three years ago had come under observation, having marked anemia. About a year ago he again came under observation and a tumor was discovered in the right lumbar region. The man had a dilated stomach, marked secondary anemia (hemaglobin running as low as 20% or less) with 1,605,000 red corpuscles, but no unusual increase in the white cells. The mass in the lumbar region is hard, but little tender; smooth, and is behind the colon, as determined by inflating that viscus. There is generally a trace of albumen in the urine, but nothing more. The possibility of some lesion of the right kidney was suspected. General condition has improved and there are now about 3,500,000 red cells.

The case of Hodgkin's disease was discussed by Drs. Ophüls, Brown and Cheney, Dr. Brown suggesting the possibility of tubercular infection being the cause of the disease.

The case presented by the second patient was discussed by Drs. Tait, Kerr, Huntington, Brown, Cheney, Kugeler, Brunn and Barbat. Dr. Tait suggested that the mass might be a cystic kidney of the adult type, though there were no marked kidney symptoms. Dr. Huntington suggested the advisability of a diagnostic incision under cocaine anesthesia. Dr. Brown saw the man a year ago and at that time thought the mass to be an osteo-sarcoma arising from the pelvis; he thought the anemia due to the stomach trouble and not at all influenced by the tumor. Dr. Cheney thought the surgeons should be called in to make a diagnosis, and that perhaps the stomach trouble might be relieved by removal of the mass, and possibly reduplication of the stomach wall. Dr. Kugeler suggested a mixed retroperitoneal tumor. Dr. Brunn thought it might be a tumor of the adrenal. Dr. Barbat called attention to the possibility of having very grave involvement of the kidney without urinary symptoms. Dr. Kerr said that operative interference had been suggested to the patient, who declined it, and that it was not urged for the reason of his general anemia condition, few red cells and small percentage of hemaglobin. Operation could do little good, for if the tumor is malignant it is inoperable and if not it is doing no harm. Diagnosis could be made quite as well, ultimately, at the post mortem, though he thought there could be no objection to a diagnostic incision under cocaine.

Dr. H. Kugeler read a paper on and presented a specimen of Membranous Dysmenorrhea. The paper was largely historical in nature and gave a general resume of the subject as treated by various authors.

Dr. J. Henry Barbat read a paper reporting the occurrence of two cases of Strangulated Appendicitis in Femoral Hernia. The paper was discussed by Drs. Tait and Ophüls. Dr. Ophüls called attention to the presence of bacilli other than the colon bacillus in the fetid pus in such cases. Dr. Tait made a similar comment and suggested that the odor was probably due to the presence of anaërobes. He doubted the advisability of considering the appendix stump a suitable means of closing the canal. Dr. Barbat said that the appendix had been in the canal for nine years and the stump was firmly imbedded at the time of operation; there was nothing else to do but to so use it. Meeting then adjourned.

Fresno County.

The Fresno County Medical Society met in regular monthly session on September 1st, at the offices of Dr. Manson, the president, Dr. E. J. Coney in the chair, a large number of the members being in attendance.

Under the regular order of business, Dr. Hare brought to the attention of the Society the importance of making every effort to increase our membership. He cited the rapid increase in membership in the State organization since the re-organization plan was effected, and laid stress upon the advantage that would accrue to medical legislation when we are solidly united. He thought that possibly our bars of admission had been a little too high, heretofore. Several members spoke upon this latter point, calling attention to the fact that there is a standing invitation to all regular physicians in good standing to join us. We are now the guardians of the A. M. A., and it should be our endeavor to maintain a high moral and professional standing among our members.

Digressing somewhat, it might be well to state that this Society numbers 40 members, active and enthusiastic. There are very few, perhaps not more than 10, regular physicians in the county who do not hold membership with us. The attendance at the monthly meetings is always large, the society meeting with the various members, from month to month. It has long been and still is the custom, for the

physician, at whose offices the society is to meet, to entertain the members socially, after the regular order of business has been finished. Banquets, lunches and refreshments are monthly occurrences, following the reading and discussion of the paper of the evening. These little spreads bring us into harmony; an hour is spent in social converse, and the best of good fellowship prevails. I know of no other society the members of which work in such perfect accord as in our local organization. Fresno is noted for the unity and good feeling among its physicians, and it would be well if other societies would follow this custom of entertaining their brother practioners occasionally. Our competitors are not so degenerate as we are often led to think. A better acquaintance often dissipates previous erroneous and unkind impressions. Of course, where the society is large, the idea of entertaining each month is impracticable, but where the membership is 50 or under, I know of nothing better to promote and maintain the spirit and feeling that should exist among the devotees of our noble profession.

A communication from the secretary of the State Society, asking this body to nominate one of our members, to be appointed by the President of the State Society, as a member of the National Auxiliary, Congressional and Legislative Committee, was read. Dr. Geo. A. Hare was nominated.

The San Joaquin Valley Medical Society meets in Fresno the second Tuesday in October. This matter was brought to the attention of the society, and a committee of three was appointed to make arrangements for the proper entertainment of the visiting physicians.

The paper of the evening was entitled "Carcinoma of the Breast" and was read by Dr. J. D. Davidson, the author choosing this subject because it is so "fatal to human life and so alarmingly on the increase." The disease has beeu known since the earliest times, and many theories advanced for its causation and many measures adopted for its cure, but as yet we can offer nothing definite and satisfactory either as to etiology or cure. However, the amount of study being given to this subject by pathologists and clinicians leads one to believe that our efforts will soon be crowned with success.

The author states that 80 per cent of all tumors of the breast are carcinomatous, and three and nine-tenths per cent sarcomatous. "A very small per cent is left for benign tumors, and if we should pronounce every tumor of the breast that comes to us, malignant, our percentage of correct diagnoses would be better than our average now of all cases treated. Should you find a hard lump on either the upper or lower outer quadrant, near the nipple, and it is retracted and dimpled, together with enlarged axillary glands, pronounce it malignant. It makes little difference which plan of treatment is pursued, 60% of these cases will be dead in two years." After mentioning, only to condemn, all other measures now used, the author states that the knife, used early, is our only hope. The X-Ray was classed with other remedies, as a failure.

A general discussion followed.

The society adjourned to meet with Dr. P. N. Russell at the October session.

ANGUS B. COWAN, Secretary.

Humboldt County.

The regular meeting of the Humboldt County Medical Society was held at Ferndale, Tuesday evening, Sept. 8th, with a good attendance. In the absence of Dr. R. Felt, the president, Dr. Delamere of Ferndale presided.

The fee bill committee asked for further time in which to complete a fee bill and were given until next meeting to make a final report.

A communication was read from the Secretary of the State Society, asking this society to name a member to be appointed by the president of the State Society on the National Auxiliary Congressional and Legislation Committee of the American Medical Association. The request was placed before the society, and Dr. G. N. Drysdale of Eureka was named and the Secretary instructed to notify the Secretary of the State Society.

A communication was read from Dr. Stanley of Hydesville, stating that a man by the name of Nelson was practicing in Hydesville without a license, and the Secretary was instructed to investigate, and to notify the District Attorney of the facts.

Clinical cases were reported by Drs. C. C. Falk and Gaynor. The papers of the evening were read by Drs. Loofbourrow of Eureka and Horel of Arcata.

Dr. Loofbourrow headed his paper "Redwood Poisoning" and stated that lacerated or punctured wounds caused by redwood splinters were more apt to be followed by severe cellulitis than wounds from other kinds of wood in this county, and that it was particularly noticeable in the spring and early summer. He cited several cases giving the history and treatment. The treatment is similar to that of cellulitis from any other cause. In advanced cases free incision followed by continuous irrigation or dressings kept moist with some antiseptic. Lately he had been using acetozone with good result.

Dr. Horel's paper was on "Legitimate Medicine" and dealt with the duty of physicians to their patients, and to one another. He deprecated the tendency toward prescribing proprietary preparations, and urged the necessity of studying *materia medica*. His paper will probably be read again at some meeting when there is a full attendance.

G. N. DRYSDALE, Secretary.

Napa County.

The Napa County Medical Society met on the 1st of September with President Elmer E. Stone in the chair.

The meeting was very interesting and profitable and all those present took part in the discussion of a paper read by Dr. Upton of Napa on "Ductless Glands."

At adjournment every member expressed himself as well pleased with the meeting.

The new society has affiliated with the State Society with the following list of members: L. M. Pulsifer, W. E. Upton, M. A. Ap Lynne, W. H. Leach, E. E. Stone, B. Shurtleff, E. Z. Hennessey, Napa; W. W. Rumsey, Yountville; W. H. Porter, H. L. Parish, Calistoga; W. L. Plodgett, Oat Hill; F. Beyersdorf, Pope Valley; C. E. Winslow, Bartlett Springs; J. L. Arbogast, J. H. Hawkins, D. E. Osborne, St. Helena, and Wm. J. G. Dawson, Glen Ellen.

J. L. ARBOGAST, Secretary.

Orange County.

The Orange County Medical Association met in their permanent meeting rooms in the Santa Ana Library building for the first time Tuesday, Sept. 1.

The paper of the evening was read by Dr. Gordon; subject, "Puerperal Eclampsia."

The society is now making arrangements for a medical library, which will be placed in the rooms set apart for their meetings as soon as suitable cases can be secured.

We have the entire library of the late Dr. Crane,

which, with about 100 volumes contributed by the members, will give us a good nucleus to build upon.

H. S. GORDON, Secretary.

Sacramento County.

The Sacramento Society for Medical Improvement met in regular session Sept. 15, at the office of Dr. James. The president, Dr. Ross, presided, and the following members answered the roll call. Drs. Baldwin, Cox, Duffiey, Hatch, Henderson, James, Krull, McKee, Lindsay, Nichols, Parkinson, Poore, Ross, G. C. Simmons, G. L. Simmons, S. E. Simmons, Sutliff, Strader, Stevenson, Twitchell, G. A. White, John White and Wright.

By request of the secretary of the State Society, a representative of the society was chosen to act on the National Auxiliary, Congressional and Legislative Committee of the A. M. A.—Dr. G. L. Simmons was the unanimous choice of the Society.

Under the head of "Report of Cases" the following were reported:

Dr. McKee was called to see a young lady who had fallen, striking her abdomen; the injury was followed by nausea and vomiting; after the second day these symptoms were much alleviated and patient seemingly began to get well, but on the third day patient suddenly became worse; seemed to be in a state of collapse. Dr. White was called in to see her, but the patient was in such a weakened condition that it was thought best not to operate. Patient lived 'till sixth day. At post-mortem examination the spleen was found displaced into the pelvic cavity; enlarged and congested, and gangrenous in places; all the viscera with which it came in contact were also gangrenous.—The immediate cause of death was strangulation of the spleen.

Dr. White reported a case of a young man who fell from a wagon seat just behind the horses; the horses became frightened and kicked, striking the man in abdomen. On examination two contused areas were found on abdominal wall; there were signs of collapse, so abdominal wall was opened; the jujunum was found punctured and considerable undigested matter from gut was found in abdominal cavity;—the cavity was cleansed and the perforation sutured. Patient is doing well and has chance for recovery.

The paper of the evening was read by Dr. James, on "The Diagnosis and Treatment of Chronic Interstitial Nephritis." The discussion was opened by Drs. G. A. White and W. K. Lindsay; Dr. Jessie Wheeler of Sacramento and Dr. F. W. Harms of Galt were elected members of the society.

J. W. JAMES, Secretary.

San Bernardino County.

Needles, Cal., Sept. 7, 1903.

To the Editor of the State Journal—Our secretary (of San Bernardino County Medical Society) having recently been appointed County Physician, finds himself too much hampered by his new duties to write news items for publication in our JOURNAL; but we are all anxious to be known to you, and to have you know that we appreciate your efforts in our behalf, while we commend the style and make-up of the JOURNAL. Our society meets every second Wednesday of each month at San Bernardino the county seat. The officers are: James P. Booth of Needles, president, and J. H. Meyer of San Bernardino, secretary. On account of my remote location (250 miles east of San Bernardino), I am deprived of the pleasure and profit of many meetings, but I am none the less interested in the welfare and prosperity of the Society. I hope every member will subscribe for the JOURNAL, and, as many interesting and valuable papers are read at the meetings, I trust some of the best of them will be forwarded to you for publication. Please send me bill for the JOURNAL and I will remit at once. Wishing success and prosperity, I am yours very truly,

JAMES P. BOOTH, M. D.

San Francisco County.

The regular monthly meeting of the San Francisco County Medical Society was held on Tuesday evening, September 8, President Kengla in the chair. In the absence of Dr. Barbat, secretary, Dr. Alderson, assistant secretary, was at the desk.

The evening's program was opened by Dr. Thos. W. Huntington, who presented a patient demonstrating the transposition of the fibula. The patient was a young boy and was presented to show the operation in its first stage. The doctor explaining that at a future date he hoped to show the complete result.

Dr. Wallace I. Terry said that union of upper end of tibia and fibula is somewhat against his previous experience. With regard to use of bone ash, he was unable to find any trace of it upon examination some time after operation.

Dr. S. J. Hunkin referred to a case where fibula was transplanted on astragalus. The patient, a boy, comes back at least once a year with his foot deformed. When brace was removed the foot turned.

Dr. M. Krotoszyner read a paper, "Observations on the Prostate Gland in its Relation to Gonorrhea."

Dr. Grosse thought it very important to call attention to the involvement at the prostate in gonorrhea. He obtained results in vibratory massage.

Dr. Rigdon designated it as "a burning question". He referred to the frequency with which the disease extended beyond the prostate through wandering follicles.

Dr. Rosenstirn said gonococci lodge for a long time in the glands. Secretions show this after gonococci supposed to have died out.

Dr. Winterberg cited cases where disease showed in progeny. Said in old cases the pus cells were not always destroyed.

Dr. Krotoszyner said it was a mistake to suppose gonococci would not die out—they do; as microscopic examination proves.

Dr. H. D'Arcy Power read a paper on "Rodent Ulcer with Report of Case." The doctor exhibited photographs indicating the progress of the growth.

The subject was discussed by Drs. J. Henry Barbat and H. B. A. Kugeler.

Dr. D. A. Stapler read a paper on "What Causes Appendicitis?" laying particular stress on loss of tissue and subsequent infection.

Dr. Huntington said that while the question had been thrashed out, still the last word had not been spoken or written. Students of the subject always find infection to be the keynote in the matter of the etiology. Further knowledge must come from the laboratory. The doctor read from the published conclusions of Dr. Frasier of Philadelphia. In closing he said foreign substances in the appendix may not do serious damage.

Dr. Rosenstirn said the main question is, whence comes the infection? Is it from presence of foreign body or a result of capillary hemorrhage? We all believe that infection is the cause. He would rather know what microscopic demonstrations prove.

Dr. Hunkin dwelt on the point that more men than women have appendicitis.

Dr. Tait referred to the frequency of capillary

hemorrhages, and said he was convinced that what many will call capillary hemorrhage is simply the direct result of operative manipulation.

Dr. Power said we know constipation attends; may there not be connection between the two?

Dr. Barbat advised early operation. One patient having cervical glands infected he operated and removed appendix, good results. Appendicitis may attack strong as well as weak.

San Joaquin Valley Medical Society.

The San Joaquin Valley Medical Society holds its next annual meeting on the second Tuesday of October, the 13th, at Fresno. The programme for the meeting is not yet announced, but probably it will be quite as good as is usually the case. The Valley Society has an enviable reputation for the quality of the papers presented and for the large attendance at its meetings. The JOURNAL wishes them an even more successful meeting than usual.

Santa Clara County.

San Jose, Sept. 16th, 1903.

The stated meeting of the Santa Clara County Medical Society was held this evening. After the transaction of general routine business, Dr. R. A. Whiffin furnished the society with a paper on "Puerperal Septicemia," which was discussed by Drs. Beattie, Saph, Cothran, Paterson, Witter, McNary and Frasee.

Dr. D. F. Beattie said that the prevention of puerperal septicemia is of more importance than its treatment. The prophylactic treatment of a pregnant woman is of prime importance. The vigorous use of the brush and soap to cleanse the hands and the nail cleaner to clean the finger nails is the best means of preparing the hands to care for an obstetric case. Antiseptic solutions, such as bichloride of mercury, carbolic acid, etc., should always be used, but the common way of passing the hands quickly through these solutions is of little use. To get the proper effect, the hands should be immersed in the solution from ten to twenty minutes, according to the antiseptic used. But the thorough preparation of the patient is as necessary as the cleansing of the hands. The parts should be washed with soap and water and sponged with bichloride sol. 1-2000. In many cases it is best to give a creoline douche, or a hot saline douche. In all cases of enema to clear the rectum is essential. Frequent examinations are to be discouraged. After the first examination, in usual cases, nothing is gained. Examinations after the birth should be avoided, if possible, but if necessary it should be done with the same care and preparation as a surgical operation. The bruised or often lacerated vulva, vagina or uterus are in a condition to take up poison. We should be most careful to prepare for any more attention to the patient. If infection has taken place, and curetting has been done, the use of intra-uterine douches of bichloride are not recommended. Creoline, carbolic acid or even sterile water are to be preferred. I prefer to clear the uterus once thoroughly with a dull ring curette, dry it with gauze, and pack lightly with gauze. The gauze brings away any shred or clot that may be left behind. If irrigation is used, care should be taken to hang the douche-bag very little higher than the patient's body. I have only had one case of puerperal septicemia in my practice. It was caused by conditions existing before pregnancy. I used injecions of serum antistrepticocci and antidiphtheretic, almost in desperation, but could notice no good or bad effect from their use. I have used formalin, but not enough to know much about it. Subcutaneous injections of normal salt solutions are useful. Much depends on the constitutional and local treatment, and the support given the patient by proper food. I forgot to mention the use of Crede's ointment, spread thickly over the abdomen and covered with oiled silk.

Dr. W. K. Davis remarked that the treatment of puerperal infection is fraught with much uncertainty and many disappointments. The intra-uterine douche is accompanied with dangers which should be guarded against. Curettment to displace adherent particles of placenta. I have found at times beneficial, but too much care cannot be taken to prevent injury to the tender and denuded surfaces. The employment of sterile cotton on a carrier, to which the particles will adhere, I have found most satisfactory. But the most important measures are certainly prophylactic. Every avenue through which infection might enter should be carefully guarded; not only the hands of the physician, but those of the nurse or attendant should be clean and all napkins or compresses sterile. Quinia should be given freely at the beginning of labor and continued for at least ten days in decreasing doses. I believe this remedy to be a great prophylactic. I give my patients six grains when labor begins and repeat this dose in four hours if labor has not terminated. I give three grains three times a day for the first three days, then two grains three times a day for two or three days; after this two grains night and morning for a week. In a practice of twenty years I have not lost a patient from puerperal infection.

Dr. Asay referring to the use of quinia, endorsed the remarks of Dr. Davis as to the value of the drug in such instances, both as a precaution against and a germicide in cases of septic infection. Evidently the therapeutic value of quinia was either ignored through prejudice or not clearly understood by many practitioners.

Dr. H. J. B. Wright said that he believed with Dr. Davis that the administration of quinia to a parturient woman is a good prophylactic measure. It will often jugulate a commencing inflammation as well as assist in the prevention of sepsis. The use of bichloride solutions as an agent to cleanse the uterus is of questionable propriety; it is a very dangerous drug. I have seen terrible results follow its use on the parturient uterus. Let me urge the physicians having cases of confinement under their care to make very few vaginal examinations.

Dr. I. N. Frasse—I know of nothing that makes a physician feel better than to get through with a long and tedious confinement case. A physician, entering the room with some pleasant remark, is shocked at the flushed face, the throbbing temples, rapid breathing and rapidly rising temperature of her who was doing so nicely. "Puerperal infection," says the physician to himself. I think it safer to consider the case one of uterine infection, and to carry out the treatment accordingly, until it has proven to be a trouble less dangerous. I have the patient drawn down to the edge of the bed, her knees separated and her feet placed on chairs. With an antiseptic solution the external genitalia are thoroughly washed off; the bag being only a short distance above the patient, a vaginal douche is then given; next a vaginal speculum is introduced, the antiseptic solution allowed to flow into the vagina and out again through the open speculum; by this method no infection from the vagina or external gentitalia is carried into the uterus. A sterilized lisle thread catheter is now carried through the patulous os and the antiseptic solution permitted to flow while the catheter is moved forward and back the length of the uterine canal to dislodge any clots or other debris. The uterus is then either packed with 10% iodoform gauze, being careful not to cause any traumatism through rough handling, or else a suppository of iodoform is introduced. I have never seen a case of iodoform poisoning follow such treatment and I do not consider a garlicky breath a symptom to be taken into consideration, in so grave a condition. I prefer a weak carbolic-boric acid solution for douching. Should frequent douching be necessary, I would change from one antiseptic to another to avoid absorbtion from too frequent use of one variety of antiseptic. If the infection is uterine only, there should be a considerable drop of temperature, the temperature remaining pretty well down. If the temperature goes down, but soon rises again, the infection is probably intra-uterine but the infected material has not been removed. I then with all the former precaution, again douche the uterus; and introducing a pair of forceps carefully search for any other substance. The uterus is douched once more and more iodoform gauze, or an iodoform suppository introduced. If the temperature now does not stay down, the infection is probably extra-uterine, and one should look for infection about the uterus; and if an abscess is found it should be promptly opened. I wish to emphasize that the douche bag should be hung only a little higher than the patient; for I have known severe shock and a violent pelvic peritonitis to follow the neglecting of this measure.

Summary:

1. (a) Simple, improved by washing; (b) recurring, improved by washing, temperature again rising due to
2. Periuterine not improved or only slightly by washing, periuterine infection, often going on to abscess formation.

Dr. M. A. Southworth, a member of this society, who a few weeks ago undertook to stop a train of cars by butting into the locomotive on his return from a visit to the County Hospital of which he had charge, and who suffered from broken ribs and other severe injuries by the collision, is now so fully recovered as to be out on the street and visiting his old patients.

J. LAMBERT ASAY, Secy.

Society Eye, Ear, Nose and Throat Surgeons.

The spring meeting of the San Francisco Society of Eye, Ear, Nose and Throat Surgeons was held with President Dr. Louis C. Deane in the chair.

Dr. Payne read a paper on "The Advantages of Mule's Operation over Simple Enucleation."

The President—The only objection I have to offer is that the Doctor has used the term "simple technique" to cover a large number of interesting facts. I should be pleased to have him go more fully into the subject.

Dr. Payne—The operation should be done with the least possible traumatism. To accomplish this one desirable step in the operation is to keep the eyeball in position by using long steel pins to transfix the sclera just behind the limbus, one pin above and one below. I find the cataract blade best for beginning the amputation of the cornea and a small scissors to complete it. The sclera is emptied with as little violence as possible. By introducing a probe upon the end of which a cotton ball is rolled loosely one engages all the interocular structures by twisting it around, and this torsion empties the sclera completely, unless there has been extensive interocular inflammation, in which case some exudate may be adherent to the sclera and no curettage is required. Hot bichloride solution, 1 to 6000, is sufficient to arrest hemorrhage and sterilize the field.

The glass ball is cleansed with alcohol and left standing in 1 to 3000 bichloride before use. Sometimes the cornea is small and its amputation leaves an opening not large enough to introduce a ball. Here a nick with the scissors on the side admits the ball readily. Careful approximation of the cut edges of the sclera and conjunctiva with silk follows. The sclera heals slowly and requires silk. The sutures remain 10 days and usually most of them cut out by that time. It is a mistake to imbed catgut sutures to bring the scleral wound together. There should be no tension across the glass ball, and still the sclera should be sufficiently filled to keep its form.

Reaction following these operations is great if much violence is used. The lids are carefully replaced over the stump and the orbital opening carefully filled with a cushion of absorbent cotton held in place by a snug bandage. In the first twenty-four hours there will probably be some pain, usually relieved with one hypo. The bandage is not removed until the fourth or fifth day if things go well. The patient can leave the hospital at the end of a week and at the end of two weeks the case is in a very good condition, though not yet ready for the shell.

Dr. Pischel—I have performed Mule's operation only a few times, with good success. But I must confess I am always somewhat afraid of sympathetic inflammation. Regarding the appearance, the hollow artificial eyes, if well made, fulfill all reasonable demands.

Dr. Eaton mentioned the use of paraffin injected into the capsule of Tenon as a substitute for evisceration of the globe.

Dr. Wiborn—I have seen 18 or 20 cases. There were three failures, one excessive reaction from carbolic acid caused the ball to come out, another the globe was a little too large and broke the stitches, and in the third the stitches did not hold, the wound gaped, and for about eight months caused the globe to look like a dilated pupil. The other cases were satisfactory, giving free movement and nice appearance. Reaction is violent when carbolic is used, and ice is necessary for 48 hours or so.

Dr. Nagel—My experience has been with a modification of Mule's operation. I use a silver wire ball instead of the glass ball and I've never had one come out. One of the points in the operation is not to get too large a ball. I have a very favorable opinion of the operation.

Dr. Deane—Much has been said against the Mule's operation, but to me it should rank as one of the classic operations when performed in selected cases. At this evening's meeting thirty-five cases have been reported by several of our members and out of that number only four cases were considered failures.

Dr. Payne—In the cases I selected for the operation there was practically no danger of a sympathetic ophthalmitis. All reported were successful and not one has had any trouble with the stump. So far as I can gather, Mule's operation has not been followed any more often by sympathetic trouble than has enucleation

Dr. Eaton remarked that the reports on the Mule's operation from various parts of the globe have been antagonistic and the general mass of evidence against it, etc.

Dr. Payne—Dr. Eaton has quoted what the vast experiences of oculists have been. I admit that the reports of isolated cases have been unsatisfactory, many oculists abandoning and condemning the operation after an experience of two or three cases. Dr. Wiborn reports twenty cases with three failures. Two of these were improperly selected for the operation. The point I wish to make is that with care in selecting cases and with greater care in technique our results will be as good as in simple enucleation and a better cosmetic effect obtained.

Yolo County.

The Yolo County Society for Medical Improvement has been organized with Dr. Walter Ernest Bates, Davisville, as president; Dr. T. C. Dixon, Grafton, vice-president; Dr. W. J. Blevins, Woodland, treasurer, and Dr. F. R. Fairchilds, Woodland, secretary. The society starts with eight members on the rolls and five others who have signified their intention to join. At the first meeting it was decided to apply for affiliation in the State Society.

Oregon State Medical Society.

The Oregon State Medical Society held its annual meeting at Portland on the 29th and 30th of September. The JOURNAL has arranged to have the meeting reported and we shall publish a full and special report in our next issue.

STATE, COUNTY AND MUNICIPAL SANITARY CONFERENCE OF CALIFORNIA.

Organization of the Health Officers of California was effected under the above title on the 8th of September, at the meeting called by the State Board of Health for that purpose. Dr. Martin Regensburger was elected president of the newly formed Conference, and Dr. N. K. Foster, secretary of the State Board of Health, was chosen secretary. Dr. Foster made the very wise suggestion that if the meetings were called for the same time and place as the meetings of the State Society, the attendance would undoubtedly be much larger. It was certainly unfortunate that so few (perhaps thirty) of the 150 health officers of the State took the trouble to attend the meeting. W. I. Foley of Los Angeles read a paper "On the Necessity of More Direct Regulation of the Public Health by

the State Under its General Police Power." Antiquated and poor laws, and lack of political interest in things pertaining to public health, were strongly pointed out. The public and the politicians should be educated up to the importance of these matters. This can best be done by a solid organization of the medical profession, making properly directed efforts. Prof. Rising read a paper on "Food Adulteration," which was most timely. A very interesting discussion of the smallpox question and its relations to local and municipal conditions was quite a feature of the meeting. Much can be done if money is available, but there is great difficulty in getting proper appropriations from country authorities and the work that should be done is thus materially hindered. Dr. D. H. Currie read an excellent paper on the subject of "Rats and the Danger of Their Spreading Disease," which will be published in the next issue of the JOURNAL.

MEDICAL PUBLICATIONS.

The Boy's Venereal Peril—This is the title of a pamphlet received from Dr. F. C. Valentine of New York, and is an elaboration of a paper read before the last meeting of the A. M. A. In it Dr. Valentine strives to place a statement of the facts relating to puberty, sexual instinct, sexual desire, prostitution, etc., together with those relative to venereal disease and its consequences, before the youth of the land. It is his desire to so prepare a bald and unattractive statement of things which are too often left to the boy to discover for himself, that it may be placed in the hands of the boy or young man and may help to lead him away from vice and to remain clean. That every developing boy should receive just this sort of information at the right time cannot for a moment be disputed. Nor can the wisdom of the effort to get such statements in simple language into the hands of those who should read them be questioned. The only criticism I should make is that Dr. Valentine has largely failed in his purpose by overshooting the mark. He forgets that there are many sorts of boys; many kinds of young men; many good, clean and excellent people who would not agree with him in the statement that a man, to be a man, should neither smoke nor drink alcoholic beverages. He shows a lack of appreciation of relative values in this, and in his remarks anent prostitutes and prostitution; a more intimate knowledge of facts and a more sympathetic appreciation of the real actualities of life would moderate some of these remarks of his and be productive of a better, because a more nearly accurate, presentation of the case. It is to be hoped that further efforts will be made and a still better pamphlet produced.—P. M. J.

Cytolysins in Serum—A report from Drs. Flexner and Noguchi on their investigations of serums, conducted under grant from the Carnegie Institution, at the Pathological Laboratory of the University of Pennsylvania, is published in the July-August number of the *Univ. Penna. Med. Bulletin*. The title is "On the Plurality of Cytolysins in Normal Blood Serum," and the report deals with investigations of the blood of the dog, ox, rattlesnake and mudpuppy. The same publication also contains a kindred paper by these investigators "On the Plurality of Cytolysins in Snake Venom," in which experiments the venoms of cobra, water-moccasin, rattlesnake, daboia and habu were used. The last named snake is Japanese, sent in by Kitasoto, and the daboia, like the cobra, in an Indian species. "The analysis of venom given . . . indicates an interesting complexity of structure, in virtue of which the solvent action of venom upon different animal cells is shown to be due not to the presence of a single substance, but to a number of principles which are distinct from one another."

The *Journal of Cutaneous Diseases* is the name adopted last month by the Grafton Press, publishers, 70 Fifth Ave., New York, of their journal, which heretofore included in the title, genito-urinary diseases. Dr. A. D. Newborn of New York is the acting editor, with whom are associated eight prominent physicians in different parts of the country.

The publication of a daily medical journal under the editorship of Dr. Albert Warren Ferris, editor of the *Medical Critic*, is projected by the Medical Publishing Company of America, 154 East Seventy-second Street, New York City. It is certainly a large undertaking and at the present time it is difficult to foresee the ready fulfillment of the promises outlined in the prospectus at hand. We wish the promoters every success in their undertaking and we earnestly hope that they may keep themselves and their paper entirely free from the influence of desirable nostrum advertisers, and all other such-like quacks. Those who may desire further information will probably get it by addressing the company as above. The publishers offer to send the *Daily Medical Journal* and the *Medical Critic* to subscribers for one dollar, paid in advance.

Pamphlets and Reprints.

"Hyoscine in the Treatment of Morphinism," by T. D. Crothers, M. D., Hartford, Conn. (Reprinted from *Therapeutic Gazette.*)

"A Pharmacological Study of an Aseptic Preparation of Ergot for Hypodermic and Internal Administration," by E. M. Houghton, Ph. C., M. D., Detroit, Mich. (Reprinted from the *Therapeutic Gazette.*)

Medical Examining Board of New Jersey—The New Jersey examining board now requires academic as well as medical training, for admission to examination. A certificate of four years in a normal or high school of the first grade, or its equivalent in work, is demanded. Some such requisite should be demanded here in California, for the "English" (Heaven save the word!) that appears in some of the examination papers is certainly "fierce"! It is utterly absurd to allow anyone to undertake high grade professional work unless he has had the proper academic as well as professional training.

Liability When Riding on Pass—In the U. S. Circuit Court for the District of Maine, the court, in Duncan vs. Maine Central Railroad Company, held that a person riding on a pass given without consideration, and after assenting to the condition that he should assume all risk of accident, and that the carrier should not be liable, cannot recover from the railway for injuries received caused by the negligence of its servants. It was also decided in this case that it was immaterial that the giving of the pass was a breach of the Act to Regulate Commerce. —Abs., from *Railway Journal.*

DEPARTMENT OF MATERIA MEDICA, THERAPEUTICS AND PHARMACY.

Facial Erysipelas.

W. F. Rodue, in the *Surg. Clinic*, recommends the following combination in the treatment of facial erysipelas:

℞.	Ichthyol	℥ii	8
	Etheris	℥i	4
	Collodii	℥v	20

M. Sig.: Apply locally with a camel's-hair brush two or three times daily.

According to the author this solution checks the spread of the disease and quickly relieves the pain. In those individuals who are asthenic he prescribes tincture of ferric chlorid internally and in suppurative cases calcium sulphid.

Darlin advocated the use of collodion, claiming that this dressing diminished the temperature of the part, and by compression interfered with septic absorption.

The following combinations are of value, according to *Merck's Archives*, in the local treatment of erysipelas:

℞.	Resorcin	℥i	4
	Ichthyol	℥ii	8
	Ung. hydrarg	℥i	30
	Lanolini	℥i	30

M. Sig.: Anoint the parts freely, cover with oil silk and apply light dressing; or:

℞.	Acidi picrici	gr. x	65
	Etheris q. s. to dissolve.		
	Aq. destil	℥iii	90

M. Sig.: Paint over the affected area two or three times daily.

Local Anesthesia.

The following simple method of producing local anesthesia is noted in an abstract appearing in *Med. Age*, in which a solution composed of adrenalin chlorid and cocaine is used in the following proportions:

℞.	Sol. adrenalin chloridi	℥ii	8
	Cocainæ hydrochlor	gr. v	30
	Aquæ	℥ss	15

M. Sig.: Fold lint into four layers and saturate it with the foregoing solution and place it on the positive electrode of a galvanic battery. A large negative electrode should be applied elsewhere, and a current of 15 to 30 milliamperes gradually turned on and continued for 15 or 20 minutes. The surface should then be washed with ether, when superficial operations may be performed.

Physicians' Commissions on Refilled Prescriptions—The Journal has received through a correspondent a copy of a circular letter sent out by a drug manufacturing firm, which we do not care to advertise here by a name, proposing to allow physicians 10 per cent commission on the refills of prescriptions of the firm's preparations. They argue that the physician is entitled to something on the refilling of his prescriptions, but, under the usual practice, he alone of the trio—manufacturer, retailer and prescriber—does not profit. It is easy to see how the manufacturer hopes to increase his profits if the physician will only co-operate. The professional aspect of the transaction is another thing. No matter how excellent the products of this firm may be, and we know nothing about them, no ethical physician would accept a commission for prescriptions and much less we should say for their unauthorized repetition, as is implied in the circular letter referred to. It is only a bid for more business, with a rather cleverly devised trap for physicians included. If the ethical argument is not sufficient, those who are incapable of fully appreciating its force may also consider the fact that advertising proprietary remedies and encouraging the public into the practice of self-dosing with them, as is suggested by the circular, is a bad practice financially for the physician and physically for the patient.—*Jour. A. M. A.*

"The Toxicity of Methyl Alcohol in Extracts and Medicines" is the title of a paper by Dr. R. H. Main, in *Am. Medicine*. He finds it commonly substituted in extracts and reports a number of deaths undoubtedly due to this cause. Deaths have been reported after the administration of from 2 to 5 drams of methyl spirit, so the danger is seen to be by no means hypothetical or remote. "Reports of its substitution are so numerous that it is useless to enter into a bibliography of the subject."

Picric Acid in Uterine Gonorrhea.—Serra reports 21 cases of gonorrheal urethritis, with metritis, bartholinitis or vulvovaginitis, including 5 cases in which the gonococci were not found, but otherwise presented the same picture. All were treated with injections of a 12 per 1000 solution of picric acid, and he found the results very satisfactory. It destroys the gonococci and they vanish early if treatment is commenced promptly. The injections are made about twice a week, with a Braun syringe holding 5 c.c.; the fluid is injected into the uterus and the vagina tamponed with gauze removed the next day. His patients were cured with one exception in from ten to forty-five days, and there has been no recurrence since. These intrauterine injections are not irritating, but have a decided analgetic action, and for their other advantages, inexpensiveness, reliability, stability of the preparation, etc., deserve more general adoption. He describes his cases in detail.—*Jour. A. M. A., from Riforma Medica.*

New names for old lamps—Under the captions "new remedies" or "new preparations", the following have been noted in sundry of the trade journals:

"Flucol." Australian oil of eucalyptus. This is, of course, of very much greater therapeutic value as flucol than it could be simply as oil of eucalyptus. And besides, the pharmacist needs new preparations and things to fill up his empty shelves!

"Uriform." Another hexamethylene-tetramine, to be added to the list published last month. These preparations are not coming out quite so fast as they should. Surely every manufacturer has some ammonia and a little formalin on hand; why not dump them together and put out another "new remedy"? If more activity in the matter of supplying new things is not shown pretty soon, a good many doctors in this country will have to go out of business for lack of things to prescribe.

In this connection it might be well to quote the stereotyped expression with which all the reading notices concerning these "new remedies" published in the trade journals wind up. The name of the

particular preparation may be filled in the blank space to suit the inclination of each individual reader.

"We believe the manufacturers of.....in placing this preparation on the market have simplified the treatment of.....and as.....is being extensively advertised to the medical profession, there will undoubtedly be a large demand for it. The progressive druggist probably already has it in stock, or is about to place bis order."

Another "new" (?) remedy.—In a letter to the *Pennsylvania Medical Journal*, Louis Emanuel states that certain things excited his curiosity in regard to an alleged "new remedy" called "oxychlorine". This he carefully examined and analyzed and found that it corresponded exactly in physical and chemical characteristics with *sodium chlorate;* from this he deduces the opinion that "somebody is imposing upon the medical profession by giving a new name to an old remedy." Judging from other experience along the same line, it is at least possible that such is the case.

Salicylic acid ester of quinine has three (or more) trade names, for the confusion of all interested. It is on the market under the trade names of *rheumatin, salochinin* and *saloquinine.* Each one of these is very much better than the others and should under all circumstances be specified and insisted upon.

"————a female remedy of value"—This is indeed interesting. It has been suspected, from the vast quantity of young appearing annually, that there was a sex differentiation in remedies. Here is a hint of the truth of the suspicion; possibly we shall receive more enlightenment later. Biology will await, impatiently, further knowledge; and particularly such as will throw light upon the great variations in type.

Hay fever has been studied with great care and from a rather new side, recently, and the developments are interesting. The existence of a toxin in certain pollens has been demonstrated, and it has been found that this toxin will, even in minute quantities, produce the symptoms of hay fever when instilled in the eyes. Successive innoculations of the pollen-toxin into horses produce a serum that absolutely neutralizes the toxin and dispels the symptoms resulting from its instillation. Thus far most of the work has been purely experimental and laboratory, but a small amount of clinical experience has been reported and it seems to be all favorable. Probably it will not be long before we have a number of brands of "hay antitoxin" on the market, and of course each one will be the only one to use and the others will all be worthless.

"Drug Habit," by Dr. W. E. Nichols, in the *Wisconsin Medical Recorder*, contains much interesting data. The sales of "patent" medicines amount to over $65,000,000 annually and is steadily increasing. Most of these nostrums contain alcohol in from 17 to 44 per cent. In 1902 three times as much cocaine was imported as in 1898, and it is hardly possible to assume that this enormously increased consumption was due entirely to an increase in the legitimate use of the drug. Dr. Nichols suggests as a cure for the opium, cocaine and alcohol habits the careful use of hyoscine hydrobromate.

Another local anesthetic,—"Stated to be free from pernicious effects", has recently been placed upon the market. It possesses the euphonic name, in chemistry, of para-amidobenzoic-acid-ethyl-ester-para-phenolsulphonate; as this is too large a baby to be comfortably dandled on the knee, it has been given a name, "for short",—"subcutis". It is a derivative of anesthesin, which is also a polysyllabic local anesthetic of German extraction. The immigrant children keep on coming.

"Anybody but a physician can practice medicine; anybody but a dentist can practice dentistry; anybody but a qualified druggist can sell drugs without paying any attention to the law. . . . The manufacturer of and dealer in secret and proprietary medicines . . . may know nothing about drugs or disease, about medicines or their effects. He may make up compounds of whose ingredients he does not know the name or the nature and he may recommend and prescribe these preparations for any and every ill that flesh is heir to—AND HE DOES IT."—Dr. A. R. M'Carthy in *Penn. Med. Journal.*

New York Association Meeting—The New York State Medical Association meets in New York City October 19th to 22d, and it is anticipated that there will be a large and interesting meeting. Certainly the most important thing that can come before the Association is the matter of joining with the State Society. Now that the code of ethics can no longer be used as a club to keep the two medical bodies from union it does not seem clear how the few men to whose personal interest it is to oppose can longer keep them apart. That the Society was in the right and the Association in the wrong was pretty clearly demonstrated by the American Medical Association at its last meeting at New Orleans.

Dr. W. H. Wiley, in the *International Journal of Surgery*, reports the rather unusual occurrence of a gunshot wound of both mother and child, thirty-three hours before delivery. But little shock and no antepartum hemorrhage resulted. The child was wounded at the junction of the dorsal and lumbar vertebrae, two ribs fractured and the cord evidently injured, as there was paralysis of the lower extremities. The mother recovered uneventfully, though the course and location of the 22 calibre bullet was not determined. At the time of reporting the case, some 5 weeks after the injury, the child was doing remarkably well and the paralysis seemed to be rapidly disappearing.

"The coroner of Philadelphia reports that fifty per cent of the deaths among children coming under his notice were due to aural sepsis."—Dr. J. H. McCassy, in *Pediatrics.*

"Since the beginning of the 19th century, 25 chiefs of State and cabinet ministers of this and the countries of Europe have perished by assassination, the fruition of 142 plots."—Dr. E. C. Spitzka, in *N. Y. Med. Journal.*

The president of the Washington State Board of Medical Examiners, in a letter to *Northwest Medicine*, cites some answers to questions in the examination in Physiology; they were all from graduates of eastern schools, and some of them are "choice":

"Section of the pneumogastric would produce paralysis of the brain."

"Fibrin is a mass of fibrous elements floating freely in the blood."

"Vim passes out through the naval."

The orthography is highly entertaining: "Esofagus," "gass," "oxigen," "paralicis," etc.

California State Journal of Medicine.

Published Monthly by the

Medical Society of the State of California

PUBLICATION COMMITTEE

PHILIP MILLS JONES, M. D., Chairman and Editor

GEORGE H. EVANS, M. D. G. F. REINHARDT, M. D.

C. D. McGETTIGAN, M. D. HARRY M. SHERMAN, M. D.

JOHN J. HARRISON - - - - - Business Manager

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

Subscription price to non-members of California affiliated county medical societies, $3.00 per year, in advance; single copies, 25 cents. Subscriptions may be sent to publication office, 31 Post St., San Francisco, or to the San Francisco News Co., 342 Geary St., or any of its agents.

NOVEMBER, 1903.

EDITORIAL NOTES.

THE OREGON STATE SOCIETY

To the Members of the Oregon State Medical Society, Greeting! The Publication Committee takes much pleasure in handing you herewith a copy of this number of the JOURNAL. On page 368, et seq., you will find a full report of the meeting of your State Society, which we trust will meet with your approval. You extended to our representative a cordial and kindly reception, and we hope that you will permit us to have the pleasure of returning this courtesy, in some measure, at the meeting of our State Society next April, at Paso Robles. The Trustees of our Society extend to you, one and all, a hearty invitation to come to the meeting of our Society and to consider yourselves as welcome as are our own members; to discuss with us the papers and matters presented, and to meet your fellow-physicians who have to live a little farther south on our Pacific Coast. We ask you to study the JOURNAL carefully. It is published by the State Society and it has no outside or inside, personal or commercial, biased control; it stands for the profession of medicine and for organization of that profession. In California we have found that it is regarded with favor and that to its account may be credited much of the great development of the spirit of organization and of the increase in the ranks of the organized. We think that through it you can materially lighten the work of organization in your State, if you desire to do so. We are willing to aid you and to coöperate with you in this work, and if you desire to make the JOURNAL your journal, to have it your official mouthpiece, the means of communication between your members, the record of your component society proceedings, we are willing to help you. It might as well be the journal of two or of three State societies as of one alone; especially when the states are so near together and so similarly situated, relatively to the rest of the United States, as are we of the Pacific Coast. We are willing to share the JOURNAL with you; to make it as much your journal as it is ours; to devote its energies to the work of organization in Oregon as well as to that work in California; to send it to your members just as it is sent to our own. As the JOURNAL is not private property, was not founded and will not be operated for the financial profit of any individuals, nor of the Society, we have no embarrassment in extending to you this proffered aid. Sturdy union can do much; close organization and cordial coöperation can work wonders; and we feel that the time has come when but one sentiment should prevail in the hearts and minds of all practitioners of medicine—harmony, coöperation, organization.

ILLEGAL PRACTITIONERS

Like many other things in life, the prosecution and conviction of illegal practitioners is not difficult if it is done right. The Board of Examiners has spent considerable time and money in finding out how to do it right and has systematized the work. All suits against illegal practitioners should be brought in the name of the Board; the Board is erected by law for the purpose of guarding the public against these birds of prey, and hence it is the duty of the Board to prosecute. In this we, as a Society, can be of the very greatest aid to the Board. If our members individually will send in word as to the existence and location of quacks, the Board will then assist the local society in bringing the suit, getting the evidence, etc., and will forward full details as to the proper procedure and the best manner of conducting the suit. It looks like a simple matter, and in reality it is; the main difficulty lies in the fact that most judges and justices of the peace are lamentably ignorant of the medical law and its interpretation. The same thing can be said of most attorneys who have not carefully studied out the question and had some experience with it. The Board has worked out these details and its attorneys have well outlined the whole course of procedure. This information is available at any time and will be at the service of any county society wishing to rid its vicinity of quacks. If your county society is loath to move, why do not you as an individual take the matter up? The Board will gladly help you, and the work should be done.

OFFENSIVE ADVERTISING.

The attention of our readers generally, but of the Committee on Legislation in particular, is earnestly called to an editorial in the *Journal of the American Medical Association* of July 4, entitled "A Law Against Nasty Advertising in Michigan." An amendment was added to the new Michigan Medical Practice Act authorizing "the Board of Registration in Medicine to revoke the certificate, after due notice and hearing, of any registered practitioner, who inserts advertisements in newspapers, pamphlets, circulars, or other written or printed paper relative to venereal disease or other matter of an obscene or offensive nature derogatory to good morals." This amendment was made possible because of the thorough organization of the medical profession in Michigan. It was actually aided by one or two newspapers! The *Detroit Journal* has for some time refused to receive quack advertisements. This is a worthy amendment and one which should be enacted by all State legislatures, for it attacks what the *Journal* aptly calls the greatest curse of our profession. What has been accomplished in Michigan can also be accomplished in California and other states if committees on legislation will do their duty. Too often the only work done by such committees is to make an annual report to their society of the work done, or attempted, during the year—by others. The Committee on Legislation of the American Medical Association is at present forming an Auxiliary National Committee with representation in every county medical society. Here is work for these committeemen. If each of these men will enter into this work with an earnest purpose to do his duty, such an amendment can be enacted by our next Legislature. A great deal of assistance can incidentally be rendered by the Committee on Legislation of our State Society.

COMMITTEES ON ADMISSION

Committees are proverbially slow to get to work and to do that which they are appointed to do; this is especially true of committees of the "standing" variety. What is everybody's business is nobody's business. County societies should be particularly careful in the selection of committees on admissions, or committees of investigation, and should see that men who will do their duty are placed on such committees. When an application for membership is placed before a society it should be acted upon with as little delay as the organic law of the society permits. There is no excuse for holding an application over for two, three or four meetings (an actual experience reported to the JOURNAL) without any action—all because the proper committee has not reported. When men accept such positions they should do so with the clear understanding that the honor carries with it some responsibility, some work to do, and they should see to it that they do their duty. Too long has the idea maintained that an office in a medical society is a delicately conferred compliment. If we are ever to lift ourselves out of the slough, to clean ourselves up and do the things that we ought to, each and every officer in each and every component society will have to awaken to the fact that there is something for him to do—in addition to making a nice little speech of acceptance of the honor conferred upon him. The only way to get anything done is to do it; the only way for us to build up and strengthen our organization is for every man to do what he agreed to when he accepted an office.

ORGANIZATION AND THE QUACK

One very important asset of complete organization of the medical profession is the ability to get rid of illegal practitioners. The illegal practitioner thrives well, when let alone, and is a menace to the community upon which he preys. If he has a degree and will not take an examination for a license, it is because he knows his own ignorance and fears the result; if he has no degree he is even one stage worse in the class of fakers. In either event he should be removed. One great object of organization is to locate first, and then get rid of, these quacks. It can easily be done when all reputable practitioners unite, point out the illegal ones, and then coöperate in their removal. This work should properly be in the hands and under the direction of the Board of Medical Examiners, and it is a pleasure to note that the Board is doing all it can under the circumstances to prosecute these gentry. But every member of the Society should help in the work. Each member who knows of an illegal practitioner or one whose license is not on record, should at once notify the Board of Examiners. Please send such names either to the President of the Board, Dr. Dudley Tait, 1054 Post Street, San Francisco; Dr. George G. Gere, Secretary of the Board, Parrott Building, San Francisco, or to this office. The JOURNAL will be glad to forward such names to the Board.

HOW MEMBERS MAY ASSIST

In accordance with the instructions of the last House of Delegates, the Board of Trustees has actively undertaken the work of organization of county societies in counties where they do not exist. During the months of September and October three such county societies were brought into life, and arrangements have been made for organizing several others. We desire to appeal to every member of the Society for aid in this work. Surely each one knows someone, either in his own county or in some other, who is not a member of a county society. If your friend lives in a county where there is

no county society, will you not ask him to write to this office for information and assistance in forming one? Or, if there are but few physicians in his county, will you not ask him to join the society of the nearest county? And lastly, will you not ask your friend, in the same county with you, to join your own county society? If you have no friend who is not a member of your county society, ask one who is not your friend, if such there be, for he certainly ought to be both your friend and a member of his county society. There is no single thing that hurts all parties to the quarrel so much as a fight among medical men. The Society is growing rapidly, but it should grow even more rapidly, and it should continue to grow until every reputable physician in the State is enrolled on the lists of county medical societies.

THE PROFESSION IN NEW YORK

The JOURNAL is pleased to acknowledge the receipt of a communication from the secretary of the New York State Medical Association, inclosing sundry documents. These pertain to the matter of an amalgamation of the State Society and Association, or rather to the steps being taken to secure this union. The Society, noting that the obsequies of the "Code of Ethics" were properly celebrated at New Orleans, suggests that its committee on conference meet a similar committee from the Association once more, and see what may be done in view of the altered condition of things. The Association, no longer painfully hampered and constrained by the archaic document which it has so long and so arduously cherished and tended, has, through a special meeting of its council called for the purpose, resolved that a committee of five be appointed, and "said committee is hereby empowered to do whatever is necessary and expedient to bring about such a union in a just and equitable manner." The Society says: "The committee asks for careful deliberation in conference that both the Society and the Association may in the near future be able to present completed and satisfactory plans to the state bodies for ratification." This is certainly the best of good news, but one could hardly be blamed, should he wonder: "Will there be more exchange of frigidly polite correspondence, or will something actually be done to which I may say, Amen; God be praised?"

QUESTIONABLE ENDORSEMENTS

The JOURNAL is very jealous of the good name of California and of its physicians. We do not like to see the names of California physicians tacked onto the endorsements of various preparations, and especially we dislike to see the names of fictitious persons, located in California by the imaginative "ad-smith," as the modern advertisement writer has come to be called. Several such infractions of what we are pleased to consider good taste, if nothing more, have come to the attention of the JOURNAL and have been noted in its pages. One eye, at least, will always be devoted to watching the advertising pages of medical journals and will not overlook, we confidently believe, these errors of commission. The JOURNAL does not desire to attack anyone or to say hard things about anyone; but it does believe in living first and foremost for the truth and for decency. Those concerns that need endorsements from California physicians had best make sure that they get good ones and actually living authors, or do without. The JOURNAL stands for every reputable physician in California and will do its best to see that they are protected in their good names as well as in other things.

TRUTH

When the den of the biggest "get-rich-quick operator," as he was called by the press, was raided in New York, the fact was disclosed that by far the greater portion of his "clients" were drawn from the professions of medicine and theology; doctors and ministers were easy game. For a generation or two we physicians have been complacent; we have been good natured and lazy; and we have been very credulous. Two important items are printed in this number of the JOURNAL, and they bear directly upon this question. One is a letter from a well-known physician of this State, and the other is an extract from an address delivered by Dr. Beard. True, the address was directed to a pharmaceutical association, but it applies largely to the medical profession as well, and its truths hit us pretty hard. Some months ago we published an editorial note entitled "Pharmacy and Medicine" (page 251) which has been reprinted in a score of medical and pharmaceutical journals, we are very glad to note. It dealt with this question of divided responsibility in the matter of increase in "ready made medicine," and the retrogressive process undergoing in pharmacy. We are directly to blame for much of the present condition of things. Many of us read the statements made by the advertisers of the new and generally secret formula proprietary preparations, or the cheap synthetic German chemicals (absolutely controlled) that flood the country, and we believe what we read or what we are told by the interested parties. We do not stop to think; we do not demand facts instead of statements; we do not know that it is very easy to buy all sorts of endorsements, or to "fake" them if they cannot be bought. We have allowed ourselves and our profession to be used and prostituted in the exploitation of the business of manufacturing unknown stuff into medicine; the business of gam-

bling with death; the business of getting blood-money for the man who cares not a whit for the blood upon it or the lives it represents. Should we not be a little ashamed of ourselves? Is it not time that we looked to our duty and to our own self-respect? There is no argument under heaven that can be used to support the employment of any drug or chemical, the exact physiologic action of which is unknown; there is absolutely no argument that can support the administration of any "secret proprietary" preparation, or one the actual ingredients of which the physician is in ignorance. There are honest manufacturers of pharmaceuticals, and there are good honest preparations—*not* secret. But, unfortunately, conditions are such as to make it almost impossible for us to hit the unscrupulous and the dishonest without doing some injury to the honest. It is as much their fault as it is ours, for they could do much service in cleaning up the stable, if they would but exert themselves. Our fault lies largely in our dense ignorance of what it is our sworn duty to know—*the nature of and the facts concerning the materials which we use and prescribe.* It is a conservative statement to say that not one physician in a thousand, the country over, knows that there are six different brands, under six controlled names, of course, for one simple chemical—hexamethylene-tetramin (JOURNAL, page 312). The editor has been criticized for devoting much space to this subject; but the criticism has come from those who were and are in absolute ignorance of the facts and the deplorable condition in which medicine has been placed by these generations of complacent credulity. This question is regarded by the deep-thinking men of the profession as the very most important question in medicine. Such men as Osler, Beard, Wiley, Wilcox, and scores of others, have uttered the strongest words of warning. Every statement here published, and every statement that has been published in the JOURNAL on this subject, is absolutely true and cannot be even disputed, let alone denied. If they are true, if the matter is so important, is it not our simple and plain duty, irrespective of what anyone else or any other journal may say, to clear away some of these noxious weeds that have been permitted to grow up in the field of medicine, and to let in a little of the good health-giving light? Let us, as a profession, strive hard to get away from our turpitude; to cease to be so wretchedly gullible.

THE CITY AND COUNTY HOSPITAL.

At the recent general vote on the question of the issuance of bonds for certain civic improvements, it was voted to issue bonds for three-quarters of a million dollars for the erection of a new City and County Hospital. The ballot specified that the hospital was to be built in the City and County of San Francisco; but the ordinance passed by the Supervisors in June, 1902, which called for this vote, stated that the hospital was to be built on a parcel of land set off from the Alms House Tract. Inquiry by the JOURNAL shows that this binds the matter—the ordinance called for a vote for the issuance of bonds for the building of the hospital in a certain place.

The bonds have been voted; the hospital must therefore be built on that site. This is a fact greatly to be regretted. The particular parcel of land is the best unoccupied part of the Alms House Tract; but it is far from the city and it is up-hill to get there; moreover, the land itself is sloping, and much expensive grading will need to be done; finally, and this is the chief objection, and the one which cannot be overcome, the site is exposed to the winds and fogs from the Pacific Ocean and is not a salubrious place for a large part of the patients who have to seek relief in the hospital. The selection of this site was practically compelled by the residents of the Mission districts of the city. They very rightly considered that the old City and County Hospital, not an impressive architectural scheme in the beginning, and now a shabby lot of shanties, depreciated the value of their surrounding properties. But in ridding themselves of the old buildings they have sent the institution so far away that some sort of a boomerang must be expected. And it will very likely come in this way—the new institution will be built and the old abandoned. The new one will, because of its distance, be inaccessible for a certain class of acute surgical classes, and, because of its weather, be inappropriate for a class of chronic medical cases. Moreover, the new one will be quickly filled, for it is not planned to accommodate the number of probable applicants, if these increase at the present ratio. For these two classes, and the overflow, other arrangements will need to be made, and the site that will be selected for these arrangements will be the present one of the hospital. This cannot be otherwise; the present site is acknowledged to be in a salubrious part of the city, free from wind and fog, and it is, moreover, accessible to patients. What the Mission residents have to fear is that, in a reaction of economy, the old buildings shall be continued and used. What they will have to work for will be more bonds for a new group of buildings. Once they are built these Mission residents will find that their property is not materially harmed by them, for the deteriorating influence of a proper set of buildings surrounded by well laid-out grounds is *nil*, and the world is quickly coming to the opinion that disease under hygienic and sanitary control is safe in almost any part of a large city.

There are now two steps to be taken before the money can be realized on the bonds: The Supreme Court of California must review the whole proceeding and say that the bonds have been

properly and legally voted. Then bankers or buyers must be found to take the bonds. These processes will require about a year, and in them the JOURNAL has no particular interest.

Meanwhile, the plans are being prepared by the Board of Public Works. A representative of the JOURNAL has seen them and has thoroughly agreed in the modifications of the ideas dominating the initial set of plans. The two-story pavilion scheme gives place to a three or four-story scheme, the floors to be connected by modern passenger elevators. There is no more reason why sick people should not be in a fourth, fifth, or tenth story of a modern fireproof building than there is why well people should not be there. Surely those who have experienced and appreciated the peace and quiet, the fresh air and sunshine of the upper stories of a modern hotel, are going to understand the reason for building up, rather than for building out sideways. On the economic side there is also a reason, for the number of roofs originally planned can be lessened and the number of beds under them increased, without increase of cost for building. In all the interior arrangements the most modern methods must be followed. Every room or ward must be supplied with hot and cold water for washing and drinking, and steam for heating, and with electricity for lighting. There should not be the need of a single fire in any of the buildings occupied by patients. Even the nurses' ward kitchens should have no gas stoves, but live steam should be used for their cooking. It is not just yet time to go into all the details, but the JOURNAL promises that sketches and floor plans shall be published and ample opportunity be given for a full discussion of the question by the profession.

TUBERCULOUS INFECTION OF THE PERITONEUM AND ADNEXA.*

By ANDREW STEWART LOBINGIER, A. B., M. D., Los Angeles.

THE fact that tuberculosis of the peritoneum and of the appendages are so frequently associated makes their combined study a logical one.

Veit, (1) in his address delivered at the last International Congress of Gynecology, declared peritoneal tuberculosis to be always a secondary infection, whereas genital involvement may be either primary or secondary. Martin (2) thinks genital tuberculosis is far commoner among women than is generally believed. Whenever we find inflammatory disturbances in the uterus or appendages, in a tuberculous subject, we should be suspicious of genital tuberculosis. He believes the appendages are affected from the intestines through the glands or peritoneum, or through the blood current. Borschke (3) found in 1393 subjects of tuberculosis brought to autopsy, 226 in which the peritoneum was affected. Of this number in only two could it be affirmed that the peritoneum was the primary focus of infection. Borschke's study demonstrated the large majority of infections to arise from the bronchial glands, lungs and pleura. Amann (4) also is of the belief that the bronchial glands are the primary site of infection and from these the lungs, pleura, peritoneum and appendages, are secondarily involved. He affirms with a rash positivism that a primary tuberculous lesion of the appendages, uterus or vagina has never yet been seen, and cites in support the statements of certain celebrated pathologic anatomists, who have never seen an unquestioned instance of primary genital tuberculosis in an adult female.

There can be no doubt that the peritoneum may become infected from the fallopian tubes. Vierodt has reported a case where in a child of six and a half years tuberculosis peritonitis followed long continued vaginal discharge in which tubercle bacilli were found. Howard Kelly has shown that women in the puerperal state are peculiarly susceptible to tuberculous infection of the peritoneum and adnexa. Amann has commented on the same observation. The frequency of infection in women as compared with men has been widely noted in peritoneal tuberculosis. This fact has led to the belief that the appendages may in a large per cent of cases be first involved. Even though the evidence of tuberculous deposits may not be apparent macroscopically along the tubes in the fimbria, there is reason to believe that in many cases the endometrium and tubal mucosa may have been the avenue through which bacilli were conveyed to the peritoneum. The early experiences at Johns Hopkins as cited by Williams, illustrate how easily tuberculosis of the adnexa in the incipient stage may escape observation until a systematic and critical microscopic study is instituted. Nothnagel found 90 per cent of cases of peritoneal tuberculosis to be in women. Out of 131 cases tabulated by König (5) only eleven were men. Osler's reports show a disparity almost equally striking. Notwithstanding this difference, tabulated autopsy reports show a greater mortality among men than women. Halstead explains this by the fact that women are more frequently operated on for abdominal diseases than men and as a result of laparatomy are restored to health.

The pathology of tuberculous involvement of the peritoneum and adnexa is essentially similar. In each three characteristic types are to be observed, namely: (a) the miliary or disseminated serous exudative; (b) the ulcerative or caseous

*Read at the Thirty-third Annual meeting of the State Society, Santa Barbara, April 21-23, 1903.

suppurative; (c) the adhesive or chronic fibroid. Some variation is found in children where, as Holt has noted, the mesenteric glands are more extensively involved, secondary doubtless to infection of the bronchial and retroperitoneal glands.

In miliary involvement there is a general disseminated tuberculosis, represented by small grayish nodules studding the tubes and fimbria. Each small nodule is surrounded by a narrow injected zone of hyperemia. In the ulcerative and caseous form, commonly seen in the tubes and in the peritoneal spaces between the intestines, there may be a marked distension of the tube from a collection of pus and caseous matter if the ostium abdominale be closed. In the peritoneum the exudate may be non-purulent and take the form of a serous or sero-fibrinous effusion, either free in the cavity or sacculated.

Cirrhosis of the liver is a somewhat frequent, though not adequately explained, concomitant of this form, and in alcoholics the exudate may be stained with blood. In the adhesive or chronic fibroid variety we find the adnexa bound to the uterus and to the floor and walls of the pelvis in a more or less dense mass. Recently, with a colleague, I saw a case in which every landmark of the pelvic organs was obliterated in a mass the size of an infant's head. It was possible after prolonged dissection to isolate the left tube and ovary and excise the major portion of the right tube; but the right ovary blended with the broad ligament in a fibrous mass which, owing to its intimate relation with the right ureter was left undisturbed. The left tube was filled with caseous material and the right nodular from tuberculous deposits. The patient made a good recovery.

Where the peritoneum is extensively involved both the intestines and omentum may be agglutinated in a dense mass. Very frequently the omentum is rolled up in a scroll under the umbilicus, and again it is often found in a nodular enlargement not unlike the nodules of a rapidly developing malignant tumor. Between the coils of intestine a fixed tissue proliferate seals the structures into a thickened mat, often enclosing within the coils a cyst-like collection of fluid.

An increasing number of cases are being reported of tuberculous infection of the vermiform appendix complicating tubal tuberculosis. Kraus (6) has recently reported a case in which in a woman of thirty there was a history of appendicitis ten years previously. A tumor was found in Douglas' cul-de-sac which was composed of a tuberculous tube and appendix and enlarged ovary. The ovary contained pus, but no tubercle bacilli. On examination it was found that tubercles were confined to the distal end of the tube and tip of the appendix. The inference was that infection was by extension from the appendix to the tube along the appendiculo-ovarian ligament of Clado. I have seen this complication in but three cases. In two instances infection was clearly from the tube to the appendix, which was bound to the brim of the pelvis and had drawn the fimbria down in an adherent mass about it. The peritoneum was involved in two cases, the omentum being gathered in clumps under the umbilicus. The effusion was not large in amount and remained free in the peritoneal cavity.

The symptoms of tuberculosis of the adnexa are neither definite, constant nor clear. They are somewhat more characteristic in the uncomplicated involvement of the peritoneum. But in many instances definite differential features are wanting. Usually in the miliary variety the constitutional quite overshadow the local symptoms. Occasionally the onset is so severely acute as to simulate intestinal obstruction or gangrenous appendicitis. Again, there may be scarcely a symptom beyond malaise, a subnormal temperature and gradually increasing ascites. Diarrhea is present if infection arises from ulceration in the intestinal mucosa.

The evidences of tubal or ovarian involvement may vary from a mild salpingitis to that of pelvic abscess. Menstruation may be undisturbed or there may be irregularity with actual amenorrhea or menorrhagia as was first shown by Daurios. In subjects suffering from pulmonary tuberculosis or tuberculous peritonitis, the symptoms in the pelvis indicating disease of the tubes, ovaries or endometrium may safely lead to the right conclusion. Kelly regards pain in the back and hypogastrium the most constant and valuable symptom in tuberculous peritonitis. In many cases it is absent. There is some tenderness and persistent tympany in all forms, and in the dry, certain more or less constant friction sounds.

In the exudative form the ascites will need to be diagnosed from cirrhosis of the liver and from carcinoma, wherein the portal circulation is seriously interfered with. But it is always well to remember that cirrhosis of the liver is often a concomitant of tuberculous peritonitis. The temperature is never characteristic. In acute peritoneal invasion it may simulate and the disease be mistaken for typhoid. But in the chronic adhesive variety the temperature may be subnormal throughout.

The diagnosis of tuberculous lesions within the pelvis will be greatly aided by carefully considering the history of the patient, together with the fact that tuberculous invasion may at the same time exist in the lungs, pleura, glands, joints or bones. But unless the bacillus is actually found in the discharge or from curetted material from the uterus, the character of the inflammatory change in the pelvic organs can only be surmised. It is well to remember, also, that no de-

pendence can be placed in the showing from the blood count.

The differential diagnosis between tumor masses within the abdomen may prove easy or difficult according to the collateral evidences which may be brought to bear. I have seen placque-like adhesions in both cancer and adhesive tuberculous peritonitis. Again, one finds nodular tumors in both these infections. An agglutinated mass of omentum, gall bladder, colon and pylorus may very closely resemble either of the conditions named.

Still again, cystic occlusions between the lower coils of the ileum have frequently been mistaken for ovarian and fibro-cystic tumors in the cul-de-sac by the cleverest of men. Nevertheless, if the history of the patient, the progress of the disease, the character and location of pain and tenderness, the temperature, pulse, condition of bowels and state of nutrition are carefully considered tuberculous peritonitis in any of its forms should be properly diagnosed.

The question of prognosis is still a matter of varying opinion. In 1884 König, whose masterly contributions to the surgery of tuberculosis mark a period of classicism, inaugurated a revival in the study of peritoneal tuberculosis by reporting 70 per cent of recoveries after treatment by laparotomy. Later he was forced to the melancholy conclusion that more time should have been allowed and instead of 70 per cent he could point to but 25 per cent who had survived. Cellier reported 71 per cent of recoveries out of 287 patients operated upon. But after two years he, too, could find but 25 per cent living. Frank reports 41 patients from Czerny's clinic of whom 26.8 per cent were well after three years. Herzfeld made a report from Körte's clinic of similar character.

Fenger, (7) in an exhaustive review, in which the ablest pathologists and operators are liberally quoted, leans strongly to the conservative views of Borchgrevink, "who does not hesitate to state that 'even the serous tuberculous peritonitis is a territory which surgery must hand back to the internal medicine clinic with thanks for the splendid opportunity which a misunderstanding gave to the profession, by means of laparotomy, to study tuberculosis in one of the large cavities of the body.'"

Happily so gloomy a view has not met with general acceptance and Fenger himself admitted that in its favorable form tuberculous peritonitis would yield 50 per cent of cures by operation. It is clear that many surgeons have been unfortunate in the selection of cases which may be properly considered operable and in the brief time allowed to elapse before reporting their patients cured. Five years would seem to be a fair limit of time before claiming a cure.

It is accepted by all that the ulcerative caseous variety is not favorable, and as a rule should be let alone. Perhaps the same may be said of the extreme types of chronic adhesive, where the peritoneal cavity has been totally obliterated.

The treatment of tuberculosis of the appendages is somewhat dependent upon the extent of area involved. If the affected part be a slight ulceration of the cervix or vagina, an extremely rare condition, the application of iodin, formalin or lactic acid following curettage of the ulcer, will usually prove effectual. Should it not, then excision and suture rarely fails to cure.

Where the endometrium is known to be involved, very commonly the tubes are also affected. But as a rule the case comes to laparotomy before this is determined and it becomes a question of curettage and ablation of the appendages or a pan-hysterectomy. In most instances of tubal involvement the latter will prove the necessary measure, anything less radical being inadequate. Generally the surgical results in tuberculosis of the appendages are decidedly favorable unless there exists extensive tuberculous involvement outside the abdominal cavity.

Ahlefelder (8) reports 13 cases, 9 of which were in married women. Only 4 were diagnosed before operation. The fallopian tubes were affected in every case save one and all the subjects were sterile. Of those operated upon 5 recovered perfect health, 5 were greatly benefited and 3 died —2 from general progressive tuberculosis, and 1 from tuberculous meningitis. These cases complicated with chronic tuberculous peritonitis showed marked improvement after laparotomy.

Sellheim (9) reports 65 cases observed at the Freiburg clinic within the past eight years. Twenty-eight of these were treated in a palliative way with much benefit. In 37 patients laparotomy was performed with the best results. Sellheim advocates the complete removal of the uterus and adnexa. In the few patients coming under the observation of and operated on by the writer, the detailed report of which would add little to the value of this review, the type of involvement was caseous suppurative in the tubes and miliary and chronic adhesive in the peritoneum. Two cases were complicated with appendicitis. In each case there had been previous to the peritoneal infection, tuberculous invasion of the lungs. All recovered from the operation, but two died of progressive tuberculosis, one six and the other 14 months after section. Surgical interference seemed of positive benefit to the others except one, in which pulmonary complications have proved a serious embarrassment.

Veit (10) believes with Borchgrevink that peritoneal tuberculosis may become cured spontaneously, but does not admit that as many will recover without operation as with it. He considers

laparotomy in all but the ulcerative caseous variety, almost invariably rewarded by cure or substantial benefit, the few failures being due to an advanced and general infection of other organs. In cases of recent development the patient should be operated upon promptly; chronic subjects should be closely observed and operated upon if spontaneous subsidence seems improbable. Veit favors simple section in the linea alba, mopping out the effused fluid and closure of the wound. Where the adnexa are involved they should be removed. Cure, he believes to be due to the antitoxic action of the serum from the wound. Statistics show 50 per cent cured and 25 per cent greatly benefited after the lapse of 4 to 5 years from the date of laparotomy. Tuberculous lesions in localities outside the abdomen are not materially benefited. Veit's conclusions may be accepted as representing the sanest view of this subject thus far presented.

DISCUSSION.

Dr. L. Brunn, San Francisco—We have only had two cases of tuberculous peritonitis. In the eastern clinics we had very frequent cases running. I have asked Dr. Sherman about his children in the hospital wards and I find that he has had no cases of tubercular peritonitis among them.

Dr. C. D. Lockwood, Los Angeles—I have one case to report. About five years ago I operated on a patient with tuberculous peritonitis, who subsequently died. A very careful autopsy was held, and we decided that the cause of death was a general tubercular infection. I also operated on a patient three years ago; there was undoubtedly tubercular infection of the tube. The right tube was tuberculous and I removed it and the ovary on that side.

Dr. J. Rosenstirn, San Francisco—The writer said that only the acute cases and cases where the peritoneal cavity was not obliterated, were favorable for operation. To that point I would say that Dr. Perry referred a male child to me who had been suffering for about six or eight months from tumorous growth in his abdomen. He had had severe pains off and on. Leukocytosis had been present, I do not exactly know how much. Hemoglobin showed marked decrease, something like 30 or 40 per cent. Sarcoma of the peritoneum was suspected on account of the hard nodules which could be felt in the abdomen, and as a last resort, laparotomy was proposed. I saw the patient and from the observation and examination I concurred in the diagnosis of sarcoma, still thinking of the possibility of its being tuberculosis. The abdomen was opened and there was a total obliteration of the peritoneal cavity, parietal and visceral layers were everywhere grown together, so that I had the greatest trouble from extensive adhesions to get to one tumor and excise a piece for microscopical examination. The abdomen was again closed and, strange to say, the boy got well. Everything disappeared in three or four months (the operation was two and one-half years ago). Microscopical examination showed tuberculosis—giant cells and everything. I only mention this that in children, at least, obliteration of the peritoneal cavity and tumorous growths could not be thought a contra-indication for attempt at operation.

Dr. Lobingier—The impression which I meant to convey was not the total obliteration of the abdominal cavity in which, when you open the abdominal wall, you find the entire contents of the cavity matted down into a smooth, dense fibrous surface. In many cases we find no nodular development at all. You may pass the hand from the symphysis to the liver and not find anything. I had not taken up the subject from the standpoint of children, but you will find in the *Journal A. M. A.* a discussion by Roach of Boston, in which he discusses the same question for children, and I infer that it is not much different in that case. The point I wish to make is this: Where you have the intestines matted down and all the viscera in such a dense mat without disturbing the relations, then violent measures for breaking up these adhesions are likely to result in disaster. It seems to me when you disturb these relations you have to consider the amount of tissue you deal with and there is very little gained by disturbing the adhesions. Also where there is no great amount of pus as indicated by the temperature, it seems to me the operation is not indicated, as shown by the large percentage of recoveries. I am aware of the point that Dr. Brunn made of the comparative rarity here of this disease. I think, however, that close observation in climates in which tuberculous patients abound will show a larger percentage of tubercular peritonitis than have hitherto been reported. As years go by, more cases of tubercular peritonitis are likely to be reported in this country.

REFERENCES.

1. J. Veit. *Monasschrift für Geb. und Gyn.*, Berlin, XVI.
2. A. Martin. Ibid.
3. O. Borschke. Quoted by C. Fenger. *Annals of Surg.*, Dec., 1901.
4. J. A. Amann, Jr. *Monasschrift für Geb. und Gyn.*, Berlin, XVI.
5. F. König. *Centralblatt für Chirurgie*, No. 35, 1890
6. Kraus. *Centralblatt für Gynäkologie*, No. 25, 1902.
7. C. Fenger. Loc. cit.
8. Ahlefelder. *Monasschrift für Geb. und Gyn.* Loc. cit.
9. Sellheim. *Centralblatt für Gynäkologie*, No. 45, 1902.
10. J. Veit. Loc. cit.

THE CORRECTION OF REFRACTIVE ERRORS.*

By W. S. FOWLER, M. D., Bakersfield.

BEFORE errors of refraction can be corrected it is necessary to determine their character and degree, and in this essay we are assuming that these factors in each case have been worked out, leaving us in correcting these deformities a problem in applied mechanics more delicate and complicated than is ever met with outside the surgical department of medicine, and the profession has cause for congratulation that these problems are so successfully handled in the majority of cases.

When the eyes and their appendages are abused by excessive work to which they are daily subjected, the slightest organic or physiologic fault in a physical system below par may become manifest in the symptoms classed under the general name asthenopia, and directly connected even by laymen with the eyes, or in those more complex symptoms called nervous reflex irritations, possibly affecting organs far distant and without apparent connection with the organs of vision; and the general proposition may be laid down: "That a definite correlation between the combined sensory and motor acts must be properly estab-

*Read at the State Society meeting, San Francisco, 1902.

lished before harmonious action can be expected and comfortable vision free from local disturbances and general discomfort attained."

The optical portion of the visual apparatus must be in as perfect a condition as possible for the work it is called upon to perform, and its adjusting parts must be evenly balanced and work smoothly before unconscious action can be maintained.

The factors in these problems, with which the oculist is daily brought in contact, are refraction, accommodation and convergence or correlation of the extra ocular muscles, and, although often each separate factor is apparently of little consequence in itself, each one must frequently be accurately corrected in order to relieve our patients of symptoms which have defied medication alone, and the problems are made more complex by the consideration of the general health, kind of occupation, hours of use, and favorable or unfavorable conditions surrounding the use of the eyes.

As there neither is, nor can be, a fixed standard for the muscular power of the ocular system, any more than for other combinations of muscles in the body, it will be seen that defects are relative only, not absolute, and that muscular tone, as well as muscular strength, has a direct and positive bearing on the character and degree of these errors.

While the ideal correction of refractive errors is a complete correction (the use of those lenses which correct the whole error), there will always be as many variations from this as there are individual opinions, and these varieties of opinion seem to be supported by the successful results obtained by their individual supporters.

Cases may be worked out on the line of general principles, or by a few broad formulæ, but no number of specific rules, be they one hundred or one thousand, will cover the details, and each case must be studied by itself, and when subjective methods are used, even the grade of intelligence possessed by the patient, as disclosed by his answers to questions, must be given due consideration.

The expert workman, who requires the best vision at the short range demanded by his employment, would not be comfortable with the correction given the bookkeeper or clerk, whose work necessitates a material increase of range, nor will the diminutive, short-armed seamstress do well with the correction best for a clergyman, who reads his sermon from a desk, thirty or more inches from his eyes. When the error is alike, then these differences in occupation must be given due weight in writing our prescription.

In the oculist's prescription, for local treatment of refractive conditions, lenses are what drugs are in the domain of internal medication, and as a drug is changed when the condition for which it was prescribed has changed, so in asthenopia, a change in condition of eyes or appendages may, and frequently does, require a change in lenses. The lenses are not curative any more than drugs are curative, but when properly applied, allay harmful symptoms and indirectly remove factors in the progress of the pathological conditions. Lens prescribing thus legitimately given to the medical man, becomes one of the most important therapeutic agents within the scope of professional use.

Just as a drug affords rest and resolution, just as a splint immobilizes the broken parts and permits restitution, just as a brace removes inequalities and gives opportunity for performance of correct physiological acts, so lens therapy serves its part; and exercise, orthoptic training, hygiene, modifications of lens power, attention to the general health, and lastly, radical interference with the lengths and position of attachments of the extra ocular muscles in order to attain better balanced muscular equilibrium, complete the list of our remedial measures.

Severe eye strain, although not marked in itself, may be an agent in the production of apparently unrelated and seemingly grave symptoms to such a degree as to mislead ignorant and careless observers into the belief in more deeply-seated and dangerous conditions. It is just this type of cases—those of the minor varieties of asymetrical astigmatism and low degrees of unequal hyperopia, with normal visual acuteness—that sudden relief and the most remarkable recoveries from distressing symptoms in distant organs are obtained.

The exercise of good judgment, and the utmost skill are necessary in the prescribing of lenses for any pair of eyes; so much is to be taken into consideration, and such slight modifications are productive of harmful results, that a medical education and a thorough training in this special form of work is obligatory; and it is to the educated physician, who, understanding the significance of eye strain, its bearing on the general health, and its proper medical treatment, that these patients should be sent. Not to the optician, who, though graduated by some opthalmic college after a few weeks, or perhaps a few letters of instruction in a mail course, is but little better prepared for properly correcting refractive errors than the patient himself.

No layman, having education and a proper respect for his physical well being, would believe himself competent to prescribe for his eyes, should he find an impairment of his visual functions. He would realize that his defective sight was but a symptom of a physical change that must be medically understood and determined before being

properly corrected; the imperfect sight or uncomfortable vision, which composed the principal symptoms for which he consults his physician, may be the early indications of a general disease, and the treatment required represent the best efforts in preventive medicine and the conservation of physical health, as well as mechanical optical assistance.

But our patients are not all educated, nor are they concerned sufficiently in their physical condition to consult an eye specialist for these eye symptoms; perhaps they purchase glasses from a jeweler, druggist, or even a department store, and later, if the use of the eyes is still accompanied with pain or discomfort, consult their family physician, and it is to the diagnostic skill and professional integrity of the general practitioner that he is sent to the oculist for proper treatment, the majority of physicians now recognizing many of the various aches and pains which are aggravated by eye strain.

The fact that glasses have been adjusted with intent to relieve some uncomfortable symptoms is not prima facia evidence that the glasses are correct, and if not prescribed by a competent physician it would be probable that they were not properly prescribed. If questioning elicited the information that because the patient could not spare the time, or some other equally good reason, a cycloplegic had not been used, it would be proper and right, in child or adult under fifty, to assume an incorrect prescription.

Time is to be taken into account, and the change of glasses, as a change of medicines, is necessary to meet changes in condition of the organs involved, even if the time elapsed since the last ones were given is short, for the laity have believed, and still think, that any glasses should last for years.

Even though the glasses be correct as to power and character, the position may be faulty, either through wear or accident, and the patient may volunteer the information "that at first the glasses were very satisfactory, but after a short time they began to trouble, and were doing no good now, perhaps they are crooked."

One more item is frequently brought to the notice of the family physician, when the glasses prescribed for constant use are not worn as directed, but rest a large part of the time in a pocket.

This constant wearing of glasses is frequently objected to by presbyopes, necessitating, as it does, a change from distant to reading glasses many times a day, but the use of the bi-focal lenses, which are now very perfectly made, will obviate objections of this nature.

Proper correcting lenses, placed in substantially made and adequately fitting frames, that are periodically readjusted, do much to retain, without increase, the primary condition of refraction for which the glasses were obtained, and prevent actlatter part is of as great importance as correct ual disease in imperfect or abused eyes.

There are cases that, not having at first the apparently beneficial effect of increased vision given to them, too readily learn to neglect or throw aside valuable aid, that to them does not seemingly give what is so popularly and unfortunately expected—mere betterment of sight—these are the cases in which such false judgment and bad decision could have been avoided had the patients been taught that there is a strict orthopedic value attached to every properly selected lens, both in its giving ease of function and insuring safety and comfort to an imperfect organ.

While it is unnecessary to relax the care and attention in selecting proper glasses, even to the delicate discrimination which must be necessary to determine the exact location of the axis of a cylinder to within less than 5°, or the power of a lens to an eighth of a diopter, it should not be forgotten that no mouth breather can be made well, nor can a dyspeptic be given normal digestion by the correction of an error of refraction, no matter how well and accurately the glasses be selected, and I present the necessity not of overlooking this correction, but in connection with the family physician to consider the other therapeutic indications.

The correction of errors of refraction then, consists of such measures as best establish equilibrium of the ocular organs and adapt them for the use to which they will be put, and these means consist of glasses properly prescribed, properly made and properly worn, as well as properly changed when changed conditions require a change in prescription, combined with such other therapeutic measures as are indicated, and this detail in optical work.

NATURE AND TREATMENT OF OBESITY, OR CORPULENCE OF THE MIDDLE-AGED.

By A. W. PERRY, M. D., San Francisco.

OBESITY is 20 per cent to 40 per cent excess of weight over the normal of 2.05 pounds per inch of height, or 300 grammes per centimeter.

Corpulence must be due either to; first, excessive muscular development; second, excessive fatty tissue; third, excessive water (serum) in the tissues; fourth, myxedema; fifth, pseudo-muscular hypertrophy.

The first cause is met with only in very laborious occupations and does not cause complaint; as soon as the hard work is stopped the excessive growth of muscular tissue undergoes fatty degeneration and is absorbed. The fourth and fifth causes are so rare that they only need

mention. The causes are then narrowed down to the second and third, or mixed types of these.

In my opinion, in middle-aged persons, the chief part of the excessive weight is due not to a deposit of fat, but to an infiltration of the tissues with water (blood serum). The exceptions are those persons with protuberant bellies and thin limbs. It is a latent dropsy in reality, needing only the sign of pitting on pressure to be apparent. This will be proven by argument, clinical and physical evidence.

To keep up animal heat and preserve the equilibrium of the tissues, a man of average weight, 143 pounds (65 kilos), must consume an amount of food which will produce 2300 kilo-calories under moderate exertion. The maintenance of the body weight and strength requires a minimum production of 2300 calories, which was found by Ranke (1) to be produced by the consumption of the following diet daily: Dry proteid matter, 100 grammes; fat 100 grammes; starch, 240 grammes.

This is much less than the figures of Veit (2) and a little more than those of Playfair (3); the latter found a seamstress living on proteid, 54 grammes; fats, 29 grammes; carbohydrates, 290 grammes, giving about 1660 calories per diem, and this must be assimilated and oxydized in the body. If this amount of food is not assimilated and oxydized the deficit is made up from the body tissues until the weight of the tissues has become reduced 40 per cent to 50 per cent, then the temperature becomes subnormal and death ensues.

The foregoing estimates of food values may be translated for practical purposes as follows:

240 grammes carbohydrates=400 grammes bread.
24 grammes proteids is contained in 400 grammes bread.
76 grammes proteids=280 grammes roast beef.
65 grammes fat in any form.

These statements are found in all the late works on physiology.

Playfair's minimum is the least ever found under exact studies and will be taken probably by any objector to Ranke's (min.) as a true lowest diet for any one of the same or greater weight under very moderate exertion. It is 25 per cent under the normal diet of Ranke. It was lived on by a London seamstress who earned 95 cents weekly. There is no better established fact in physiology than a minimum diet for maintenance of weight and strength.

These premises being admitted, it follows that a prolonged deficit of 20 to 25 per cent in diet from the above mentioned Ranke's normal diet must be followed by a loss of weight of the muscular, fatty, connective tissue and glandular tissue, each one losing in proportion to its being of vital necessity. Loss of weight in animals and persons dead of starvation: Heart, 3 per cent; brain, 3 per cent; blood, 27 per cent; liver, 54 per cent; spleen, 67 per cent; muscles, 31 per cent; fatty tissue, 97 per cent.

If the water excreting mechanism (the kidneys, capillaries of sweat glands, and lungs, and the vasomotor nerves controlling them) is in perfect working order, the whole body loses weight; if the water excreting mechanism is not in good order the weight of the tissues lost is replaced by water and the whole body loses slightly or not at all in weight.

We frequently meet patients who apply for reduction of weight, an examination of whose diet shows that it is much less than the above, and yet they preserve an excessive body weight. Under a diet of 20 or 25 per cent less than the above they are mathematically certain to lose fat, circulating albumen, and muscle and organ albumen. If they do not lose weight it is certain that the lost tissues are replaced by water. The often observed increase of weight after excessive use of liquids, and the corresponding loss of weight after limitation of fluids is explained (in order to hang on to the common theory that obesity or corpulence is always excessive fat) as follows: Water drinking increases the constructive metabolism, so that more fat is made and deposited from a given amount of food, and conversely destruction of fat occurs with a reduction of fluid taken.

It is a good rule, unless we have positive evidence to the contrary, to take the simplest explanation of any phenomenon. In this case the simplest explanation is that corpulency with excessive water drinking is due to the retention of water, and that loss of weight with decreased fluids depends on loss of water to the body. It is of extreme importance to know if the corpulence is fat or serous plethora or a true plethora with excess of quantity and richness of blood. It might be urged that an equilibrium of the tissue weight could exist on a deficient diet, from deficient oxydation, but there can be no such thing as a prolonged deficient oxydation with a normal or less than normal diet: this would cause lowering of the body temperature and death from the cooling of the body. There may be, however, deficient oxydation of the excess above a normal diet leading to many diathetic diseases.

Moleschott (4) found in the body of a healthy man of 60 kilos weight:

Water 67.6%	Specific gravity		1.000
Fat 2.5%	"	"	.930
Albuminous substances 15.2%	"	"	1.060
Derivatives of " 4.9%	"	"	1.058
Salts and bone " 9.2%	"	"	1.900

These give an average body specific gravity during life of 1.012 to 1.040.—(Meeh.)

Fat has a specific gravity of .930 and water or blood serum 1.029—when the fat exceeds a normal proportion it should reduce the body specific gravity towards .930, and if the serum is in excess and replacing the fat the specific gravity

of the body should be 1.030 and higher. This is just what is found in children from 7 to 13 years of age, who certainly have an excess of fat. The specific gravity was found by Meeh (5) (average of four children) 1.012. I found a fat boy of 12 years, weight 45 kilos, having a specific gravity of .980. Two very thin young men had specific gravity of 1.039 and 1.047; three plump females of 20 years had specific gravity 1.021, 1.025, 1.027. With stout middle aged persons the specific gravity is found to be high—1.030 to 1.040.

Clinical Evidence—Middle aged corpulent persons drink a great deal. In steam baths they often lose 900 to 1500 grammes weight. The difference between the night and morning measure of the leg is one inch or more. In young adults the difference is one-fourth inch. In middle age the average is one-half inch. This is due to a shifting of the serum in the lymph spaces. They lose weight on a restriction of liquids with a normal diet of bread, meat and fat, and increase in strength. By the proportion between the water taken (or watery liquids) as drink and the urine excretion, the urine should equal 68 to 80 per cent of drink in temperate climates and with moderate exertion; if it is much less than this water is accumulating in the tissues.

Serous plethora is caused by a want of balance between the ingestion and excretion of water and indicates a disorder (not necessarily a disease) of the water excreting apparatus. The capacity of the kidney to excrete water is ten times greater than the usual amount of 1200 to 1600 cubic centimeters of urine per diem. When large amounts, 2000 to 3000 c. of beer are drunk in 2 or 3 hours, Maxim and Rieder (7) found an immediate rise in blood pressure of 40 mm. of Hg in 40 minutes, which fell back to normal in two and a half hours, when most of it had been excreted with the urine or had passed out into the lymph spaces to be excreted more slowly. When this accumulation of liquid remains in the tissues we must assume some disorder of the water excreting mechanism. When 1200 cc. of liquid is taken as drink per diem with a Ranke's diet as above, 1777 cc. of water is to be excreted to maintain an equilibrium. This is made up as follows:

180.	cc.	from oxydation of hydrogen of bread
55.5	"	" " " " " fat
49.	"	" " " " " meat
292.	"	" moisture in bread and in meat
1200.	"	taken as drink.
1777.5	"	total water

Of the 1777 cc. of water 60 cc. is excreted in the feces, at least 800 cc. from the lungs and skin, leaving about 917 cc. to be excreted in the urine. The minimum of 800 cc. estimated to be given off by the lungs and skin was found by Pettenkoffer (8) and Veit in their respiration chamber experiments on a person at rest. This is enormously increased by exercise. The loss of water excreted with the urine should be 52 to 68 per cent of the total water ingested as drink, formed from the food and contained in the food.

Diagnosis of corpulency due to serous infiltration as against true fatty infiltration: First, the specific gravity of the body is 1.030 to 1.040; second, the daily amount of urine is less than 60 per cent of the liquids taken as drink; third, they preserve an excessive body weight on 10 per cent less than a Ranke normal diet. The third method is the most reliable, but it involves weighing and measuring all food and drink except water and calculating, from the table given, the contents of each in carbohydrates, fat and proteids.

The treatment may be medical or dietetic, which last is the dry treatment used by Prof. M. J. Oertel for heart disease. The use of the thyroid extract has certainly often good results, but is often attended with disturbance and weakening of the heart action so that its use must be suspended. The use of saline purgation will reduce weight and at the same time reduce the richness of the blood in albumen, with increase of salts, both conditions to be avoided. Heinrich Stern (6) has pointed out that a free use of thyroid extract has produced diabetes. To reduce weight in serous plethora or in actually developed dropsies not dependent on primary parenchymatous kidney disease, we should allow only 300 or 400 cubic cc. more of water to be taken daily in drink and food than the daily amount of urine secreted. A minimum of 800 cc. of water will be lost by the lungs and skin, and so a net loss of 400 to 500 cc. or grammes of weight will result. The following taken from Oertel's *Kreislaufstorungen* gives the percentage of water in food prepared ready to be eaten:

Numbers indicate percentage of water: Soup, 91.6; boiled meat, 70; roast mutton, 74; roast beef, 59; roast veal, 78; dried meat, 40; fish white, 74; pudding, 48; mushes, 80; bread, hard, 30; bread, soft, 40; carrots, boiled, 82; spinach, 83; peas, 69.5; lettuce, 97; fresh fruit, 85; string beans, 88; celery, 84; asparagus, 94; milk, 87; cream, 65; cheese, 35; bakers' toast, 1.18; crackers, 7.50; potatoes, boiled, 70; turnips, boiled, 82.5, cabbage, 85.

To attempt to reduce the weight of a person with serous plethora by cutting down to less than Ranke's normal diet, namely: Meat, 280 grammes; fat 100, bread 400, is to make a serious mistake. Unless the above amount or a physiological equivalent is taken, the body will still consume that much to maintain animal heat, taking the deficit in food from its own tissue; the fats will disappear, then the muscular tissue, and a condition of debility ensues which will favor in-

crease of serous plethora and of body weight. To diminish the bread and meat of a person with serous plethora will make his blood poorer in albumen and in corpuscles and richer in water, and will still further increase the transudation into the lymph spaces and also his weight. The conditions for which reduction of weight is indicated are angina pectoris, any form of heart disease with decompensation, as shown by short breath, palpitation, edema of the feet, chronic bronchitis, with dyspnea and debility in plump middle aged persons without any obvious cause. Von Noorden says that reduction cures are indicated where chronic interstitial nephritis, rheumatism, gout, diabetes and tuberculosis are associated with obesity.

REFERENCES:

1. *Ernarung des Menschen*, Munchen.
2. Veit, *Zeitschrift fur Biologie*.
3. Playfair, *Medical Times and Gazette*, 1865, page 460.
4. *Moleschott Phisiol der Nahrungs*, Mittel, 1859.
5. Meeh, *Zeitschrift fur Biologie*, 1875, page 448, Bd xv.
6. Heinrich Stern, *Medical Record*, Vol. 59, page 204.
7. Maxim and Rieder, *Oertel Kreislaufstorungen*, page 460.
8. Pettenkoffer and Veit, *Zeitschrift fur Biologie*, Bd II, page 450.

THE COMMON RAT.*

WITH SOME SUGGESTIONS AS TO THE BEST METHODS FOR ITS DESTRUCTION.

By DONALD H. CURRIE, M. D.
Assistant Surgeon Public Health and Marine Hospital Service; Bacteriologist M. H S. Laboratory, San Francisco.

THE rat is classified by zoologists as follows: Class, mammalia; order, rodentia; family, Muridæ; sub-family, Murinæ, which contains over 15 genera. Of these we have to deal with only one genus, namely, *Mus*. This genus alone, however, contains over one hundred species, but fortunately only three have any interest to the medical or general public. They are in order of their importance: *Mus Decumanus, Mus Musculus and Mus Rattus.*

The *Mus Rattus*, or black rat, was originally a native of India and from there, by means of commerce, it has spread over the greater portion of the globe, destroying the original house-haunting species wherever they gained a foothold. They thus invaded the continent of Europe, England and America and were known as the "black rat," or "common rat" for nearly two centuries; when, owing to the invasion of their destroyer, the Norway rat, they have become almost extinct in the above-mentioned countries except parts of South America, where the lower type of development of the original species of rodents on the one hand, and the slower invasion of the Norway rat on the other, still enable it to exist to a certain extent. The body of the black rat seldom exceeds seven inches in length, while its tail is from eight to nine inches long. The color is usually bluish black, although an exception to this is met with in tropical countries where it assumes a reddish tint (the type known as *Mus Alexandrus*). The abdomen is somewhat lighter in color than other parts of the body. Compared with the Norway rat it is mild and tamable in disposition, and is the ancestor of our white rats.

Mus Decumanus—By far the most important, if not the only species we, as sanitarians have to deal with, is *Mus Decumanus*, or the Norway rat. This term is a misnomer, as not only is this species a native of Western China where it is still found in a wild state, but Norway and northern Europe generally were invaded at a later period than was southern Europe and England. Their almost world-wide invasion, when once begun, was rapid and unobstructed. They entered Europe by way of Asia Minor and the Mediterranean ports; were carried from Gibraltar to Western Island and from thence to England. At a still later date they were imported to America. Wherever they landed they accommodated themselves to the conditions met with, and with surprising rapidity destroyed not only the preceding invaders—the black rat—but all of the house-haunting species of rodentia which still remained except *Mus Musculus* (or common mouse), which was protected by the small diameter of their burrows and their cautious natures.

In reading the older authors who witnessed the invasion of the Norway rat, we are led to infer that they were at that time even more predatory and ferocious than their descendants of the present day. Thus, in sections of Western Island, where they first made their landing, they completely destroyed the frog and even depopulated shallow fish ponds. Soon after this, in hopes of destroying the natural wood rat, which was doing great damage to the cane fields of Jamaica, the inhabitants introduced the Norway rat. This experiment had the result so frequently seen when a foreign animal is introduced into a country to destroy another species—they exterminated the wood rat promptly, but became a worse pest themselves. This species is of heavier build than the preceding, from eight to nine inches long; the head is bluff and rounded; ears short and broad; tail shorter than body and head combined; color of an uniform grayish-brown above and white below; ears, feet and tail of a flesh color. The color may vary considerably from the above type, even be quite black. The female bears from 15 to 50 young per year, which in turn are able to become mothers at five or six months of age. This wonderful productiveness, combined with its habits, ferocity, strength and cunning, make it proof against extinction by any of its natural enemies; and these qualities, together with its adaptability to almost any conditions, its great powers of destruction, and the fact that it is probably the greatest factor in the spread of a disease that in one outbreak caused the death of one-third of the population of Europe, puts even man on the defensive. To counterbalance its natural safeguards, two factors

*Read before the State, County and Municipal Sanitary Conference of California, September 8, 1903.

work to keep the number of the species within reasonable bounds, namely, the ratio of births is eight males to every three females, and that, while in times of plenty the rat is more of an epicure than he is generally accredited, in times of scarcity it becomes a cannibal, the stronger males devouring not only the weaker members of their sex, but it is stated even females and their young. While omniverous, it prefers a diet composed largely of meat, and will take great risks to procure it. While all of the same species, differences in environments have caused a considerable difference in habits and appearance, in some cases amounting almost to a variety. The most important of these subdivisions are the sewer rat and the house rat. The former lives in sewers and about the water front. They are the largest and fiercest of their species, and are said to confine themselves strictly to this habitat. The other, the house rat, lives about dwellings, barns, etc., but unlike the sewer rat, is a great traveler, making frequent migrations to distant places, sometimes in large bodies as though by a common agreement.

The only other species of much importance, from either a sanitary or economic standpoint, is *Mus Musculus,* or the common house mouse. It, also, is an Indian invader, but, as before mentioned, the small diameter of its burrows enabled it to escape the fate of the black rat. Its chief habitat is the dwelling of man, although it is found less frequently in barns and warehouses; its presence in these places in any considerable number is a good indication that there are few or no members of *M. Decumanus* present.

In view of our lack of definite knowledge as to the habits of the rat, especially as to whether it confines its search for food to a limited area, or has a wide range; whether those found in sewers remain there, as has been claimed, or make frequent excursions to houses, it is better to apply measures of destruction to all areas infested, whether houses, sewers or wharves, rather than to direct our efforts to only one class of such places—sewers for example—trusting that those living in other places will find their way to the trap or poison. Another characteristic of this animal must be borne in mind when dealing with problems of rat destruction, that is, aside from the normal periodical migrations the rat is easily frightened by an unusual mortality, whether from poison or disease, and such an occurrence among them will sometimes cause the sudden departure of large numbers. Not only is this an important fact in the spread of diseases, but it may lead to errors in estimating the number of rats that have been destroyed, and thereby cause an undue confidence in the methods employed. Such a migration gives no permanent benefits, however, for not only do the original inhabitants return after a time, but those from outlying and over-populated districts may seize the opportunity to enter the depopulated area, attracted by the greater abundance of food and the lesser competition; at any rate, the deserted district soon becomes reinfested. This latter factor adds greatly to the difficulties in the extermination of rats in a given district, success only inviting the influx of rats from surrounding places. In this connection it might be mentioned that one of the principal means by which seaports are kept infested by these rodents are ships, especially those carrying grain; and unless precautions are taken either to prevent rats from going aboard vessels at their port of departure, or methods are employed at the port of arrival, having in view either the destruction of rats aboard the vessels or the prevention of their landing, the chance of destroying them in a city with a large shipping becomes much more difficult.

Looking over the history of this animal that has been endowed by nature with qualifications sufficient to render it capable of, in less than three centuries, spreading over the whole world and holding without difficulty every foothold that it has obtained, we cannot expect that the task of its destruction will be either an easy or a short one; nor would it be reasonable to suppose that even if its destruction was accomplished in a given locality that it would be anything like permanent, unless measures were kept up; and it may be both hoped for and expected that at no very distant date it will be as much the duty of our municipal governments to destroy the rat as it is to enforce the removal of garbage; and then it will become the duty of our quarantine officials to destroy rats aboard vessels before they are allowed to dock; both the sanitary and commercial welfare will demand it.

The more common methods employed in the destruction of rats might be classed as follows: (1) poisoning with chemical substances; (2) infecting with Danyz's virus; (3) destroying by the use of predatory animals; (4) trapping; (5) killing with poisonous gases in confined areas; (6) construction of buildings and other methods tending to make entrance difficult or impossible; (7) use of substances disagreeable to the rat, causing him to leave a given locality; (8) the offering of rewards.

Poisoning With Chemical Substances is the most common method employed for the destruction of rats on a large scale. Its advantages are that it is cheap, easily applied and effective, and is probably no more liable to cause a premature panic among them than are other methods. Its disadvantages are that it is sometimes dangerous to people and domestic animals, both from the possibility of dogs, cats and even children eating the poisoned bait, or from the poisoned rodent

vomiting and contaminating food stuffs. Its safest and chief application is its use in sewers and other places not frequented by human beings or their pets. In the employment of this method we have to choose between two classes of drugs—those killing quickly and those causing death after a considerable lapse of time. The first class has the advantage of destroying the animal within a few moments after ingestion, thus preventing it from doing damage by food contamination; and when applied on a bait which cannot be dragged about, such as lard, and given such protection as is offered by a box open at either end and of small enough diameter to prevent anything larger than the rat from entering it, it is probably the safest class of chemical poisons that can be used. Its disadvantages are that the suddenness of death is apt to frighten the rats that may witness it and cause them to become suspicious of the bait. Of the quick poisons, strychnin and potassium cyanid are probably the best. Either of these may be applied on the bait, in substance, in solution or in the form of a paste made by rubbing up the chemical with lard or some similar material. As the presence of these chemicals will be detected by taste, it is well to have it of sufficient strength to insure death from one or two mouthfuls of the bait. The quantity of the substance necessary to cause death is, in the case of strychnin or potassium cyanid, very small. In a few experiments performed in our laboratory it was found that even a small amount of potassium cyanid was almost instantly fatal; one grain of strychnin killed in three minutes; one-third of a grain required over four hours, while in an unknown, but very small amount, death took place in 12, 24 and 36 hours respectively; so a bait of sufficient strength to insure the ingestion of at least two grains is to be desired if a rapid result is to be obtained.

The slow poisons have the advantage of not frightening away or causing suspicion among the unpoisoned rats; too long a time elapsing from cause to effect for even this sage to reason it out. The animal usually suffers for some time before death when poisoned with this class of drugs and (especially if water is not convenient) in its mad search for drink it frequently leaves the locality in which it sickened. This is an advantage when employed in a dwelling, as it may save the necessity of tearing up a floor to remove the source of the odor emanating from the dead rat. The disadvantages incident to the use of these poisons in dwellings or public places are the proneness to vomiting and the excessive thirst which they cause, which, while endeavoring to quench, may cause the animal to enter rooms containing food and drink and contaminating the same. Therefore, when such poisons are employed in dwellings, care should be taken to see that all foods and fluids are protected.

Of the slow poisons, phosphorous and arsenic are probably the best; and our experience here would lead us to conclude that the former is the more certain. The several "pastes" and "rat poisons" on the market owe their efficiency chiefly, if not entirely, to a mixture of the substances, and when employed on a small scale they are the most convenient form to use; but when required in large quantities it is economy to make the mixture, and this can be done by rubbing up five or ten per cent of the phosphorus or arsenic with some oily substance, such as lard, and applying the paste on cubes of rye bread, meat or fish. These should be placed in infested localities; the bait as well as the poison should be changed from time to time in order that the rat may neither tire of it, nor become suspicious.

Infecting with Danyz's Virus.—This organism, discovered by Professor Danyz, is a bacillus of the para-colon group closely resembling and probably identical with the bacillus typhi-murium, the cause of a disease among mice (*Mus Musculus*). Danyz was able to raise the virulency of this organism to such a degree that it became as fatal to rats (*Mus Decumanus*) as the bacillus typhi-murium was to *Mus Musculus*. He further claimed that not only did it destroy rats that actually ate it, but that those, while ill, transmitted the disease to others, thus causing a progressive epizootic which would destroy rats without injuring man or other animals. The experiments of Passed Assistant Surgeon Roseneau, Director of the Public Health and Marine Hospital Laboratory in Washington, and a similar series of experiments performed in this city under the direction of Passed Assistant Surgeon Blue show that when this bacillus is fed to rats in the laboratory about from 50 to 90 per cent of the animals so treated succumb; that when healthy rats are shut up in small cages with those that have sickened, a small per cent only of the former become infected and die; and that those rats which sicken and recover are immune to subsequent infection.

To summarize and apply the knowledge obtained from these experiments: Rats which actually eat the virus die with almost the same certainty that attends ingestion of chemical poisons, but it is very doubtful that there would be any spread of the disease among rats in their natural habitats; that is to say, when not confined to close contact with the sick, and that the harmlessness of the virus to man and domestic animals makes it especially useful about dwellings and public places. It cannot be expected to destroy all the rats in such a locality, however, for the reason that a certain per cent recover and become permanently immune. Whether this immunity is transmitted to their offspring I am unable to state. Next to this immunity the greatest disadvantage is the expense incident to the use of this method, a single tube of the virus costing 70 cents,

which is only sufficient to saturate one-half a loaf of rye bread. The virus can be obtained direct from the Pasteur Institut, Paris, France, or from their American agents; the directions for the use are sent with the tube.

Destroying by the Use of Predatory Animals—The time-honored use of the domestic cat and dogs, especially the terrier breeds, is too well known to require discussion. They are useful in killing and frightening away a certain number of rats from dwellings, stores and warehouses, but do not destroy enough to make them of much importance. The mongoose has been used in some countries for these purposes, but I am informed that they have not proved to be very satisfactory. It is illegal to bring this animal into the United States, and therefore it cannot be used here. The weasel and ferret have been employed to a considerable extent by professional ratcatchers, especially in large commercial houses, and while probably effective in destroying the rats, it would be a dangerous experiment to turn such animals loose upon a community. The possibility of their having the same disease that the rats are subject to; whether their powers of destruction would not be as great as those of the rats, and whether they would confine themselves to the city or go into the neighboring rural districts, where their destructiveness is well known, are serious problems to be considered before such a step is taken.

Trapping—This method, when properly applied, is capable of producing fairly good results in a limited way; but owing to the sagacity of the animal, to be entirely successful it requires some care in the choice of trap, bait, location and attention to details. It is a better method for the individual householder than for municipal authorities, as it has been found in the latter case that the loss of traps, wages of men to care for them, and the cost of keeping a horse and vehicle to move the traps from place to place, make the cost per rat destroyed far above that of poisoning and even more expensive than the offering of rewards.

There are a great many styles of traps on the market, including both those that catch the animal alive and those that either kill outright or seize the limbs and hold until the animal is dispatched. The former class are usually constructed so as to be capable of holding a large number at one time, while most of the latter have to be reset after each rat has been caught. In choosing a trap of the first class described, one point of importance is to see that the meshes are not too large, otherwise young rats will frequently make their escape. The large per cent of young rats among those trapped would seem to indicate that those of riper years are cautious about entering such devices.

Killing With Poisonous Gases in Confined Areas—This method, while ideal on board ship, is of little service ashore, for the reason that we have few "confined areas," the animal being able to escape by the same way it enters, either into a sewer, adjoining house, or subterranean burrow. This method has been tried in the sewers to a limited extent, but it is doubtful if it is ever attended with very good results, the spaces being too large and escape ways too numerous. If it has any effect at all it would probably be to run the rat from the sewer into the house, which is to be avoided. Sulphur dioxid or chlorin gas are about the only substances that can be employed for this purpose; formaldehyde is not poisonous enough to animal life, an adult rat standing an atmosphere containing two per cent of the gas for half an hour; hydrocyanic acid and arsenureted hydrogen are too poisonous to be handled with safety; carbon disulphid, carbon monoxid, an illuminating gas, are too combustible.

Construction of Buildings and Other Methods Tending to Make the Entrance of Rats Difficult—A well constructed building, having a cement floor in the basement, with no spaces between the outer and inner wall, and with pipes leading to sewers well trapped, is a great aid to keeping a place free from these pests; and of even greater importance in this connection is the closing of all abandoned drain pipes leading from the houses into the sewer, this being the most usual route followed in traveling to and from these places.

The importance of garbage being deposited in metallic covered receptacles might be mentioned here, for the rat's food consists chiefly of what man throws away or leaves unprotected, and it will frequent only those places where such food can be most easily obtained. While not just relative to this part of the subject, it would not be too much of a digression to call attention to the advisability of requiring all ships in port to keep rat guards on their hawsers, not, as has usually been the case, for the purpose of keeping rats from coming aboard, but to prevent the landing of unnaturalized ones. In spite of this, however, some rats will leave a ship unless it is anchored well out in the stream, and swim ashore, and some ships will be near enough to the wharf to enable the rat to jump ashore, so that the importance of a wharf so constructed and of such material as to make a landing difficult or impossible should not be lost sight of.

The Use of Substances Disagreeable to the Rat, Causing It to Leave a Given Locality—This is probably the least important and most selfish method so far mentioned, and I see no place for it in properly conducted rat eradication. The most commonly used substance of this class is the so-called "chlorid of lime" of commerce. It acts by sticking to and burning the soles of the feet, when scattered in the burrows or runways of the

animal. Of the opposite of this—substances attractive to the rat—I have no knowledge. Oil of rodium is the one for which the claim is most often made, and is used to attract the animals to poison or bait.

The Offering of Rewards—This has been employed in a number of places with some success. Just how economical it would be would of course depend upon the locality and as to how badly infested it was. The average wages of the laboring class divided by the number of rats the average individual would catch in a day if he devoted his whole time to this pursuit, would probably be a rough estimate of the amount of reward per rat necessary to be attractive if large numbers were to be destroyed, although a moderate number could probably be obtained at a lower rate if such a reward were sufficient in amount to be attractive to boys. The only objections that I have heard offered to this method are: First, that attracted by the reward, some thrifty individuals have gone into the rat raising industry; and, second, that in countries where plague prevails among the rats, the number of cases might be increased by the handling of them.

The first of these objections could be met by not offering too large a reward, and withdrawing and renewing this reward without notice and at irregular intervals. The second objection would be met, partially at any rate, by the use of tongs in the handling of the dead rodents.

We see from what has been said that the methods that may be employed for the destruction of rats are numerous, each having some advantages and some disadvantages, probably a combination of several of these methods being the best way: and while the most important are being applied by the municipal authorities, it would be of advantage to, by means of a circular published in the daily papers, call upon all householders and citizens to contribute their mite to the work by destroying those about their own premises, the circular setting forth the most practical method for this purpose.

THE PRACTICAL VALUE OF THE STATE MEDICAL LAW.*

By W. W. CROSS, M. D., Visalia.

MOST of us are familiar with the State law supposed to govern the practice of medicine in the State of California only by reading it as printed in the Register. A limited experience in watching an attempt to put the law into action against an offender soon brings one to look upon the whole matter as a very complicated affair, and to wonder if something could not be done to make the present law more efficient, or supplant it by another. To make a new law would mean to learn many things after it has been enacted which have been gained by experience with the present one, and it is doubtful if a new law could possibly work any better than the present one can be made to, by some changes or by other matters on the outside being adjusted to make it operate more efficiently.

When anyone guilty of violating the present law is arrested, he at once puts up all the fight in him, and brings to bear all the influence of his friends to avoid conviction. The complaining witness in the case will, without doubt, appear in court a much worse person than the party on trial, as I have had an opportunity to observe. I can safely state that all persons who were present at one trial I have in mind felt very sorry for the complaining witness in the case. The defendant generally is a man who advertises in the daily or weekly papers, and I am sorry to say that the purchase of a little advertising space in one of the so-called moral mouthpieces of the public soon lulls it to a beautiful silence, or causes it to take up the cause of the defendant for the profit gained from the advertising. They speak not of the benefit to the public in general if the law governing the practice of medicine is enforced. They do not in any way try to shape public opinion to secure a conviction, thereby suppressing a dishonest practitioner, who in almost every case is an ignorant one.

I quote here a contract which came to my hands from the patient who signed it:

Dr. M. E. L. Fredo,
Specialist and Sanitarium,
No. 714 S. Court St.,
Visalia, Cal., January 9th, 1903.

I Dr. M. E. Elfredo Here by agrees to dottor Mr. J. Salazar and furni She all Medicina and cash for the Som at fifty $50.00 Dollare in monthly payemant $10.00 dollar down and the balance teen $10.00 Dollare thirty day after each month tal it all payde.

I Mrs. E. Romero I promer to pay Dottor M. E. El Fredo the abov contractts monthly payments taen $10.00 Dollare I signo my name.

MRS. E. ROMERO.

and I Mr. J. Salazar Takey back Satha and I have to call another dottor that Mrs. E. Romero To pay eitre one I call for Mrs. Romero.

DR. M. EL FREDO.

With the above specimen before us we would not expect anyone to accuse us of jealousy, or of fear that our practice would be taken from us by a man who could do no better in an attempt at a little ordinary English. We certainly are not going to be benefited to any great extent if such a person is interfered with in his ravages upon a confiding public. Yet we can safely say that should any member in this room swear to a complaint against this party where he may now be at work, and he is still at large, it would be a sad day for the complaining witness, and he might in the end have to defend himself against

* Read before the San Joaquin Valley Medical Society, Sixteenth Annual Meeting, Fresno, October 13, 1903.

a damage suit, or pay some attorney a good fee to stop the proceedings.

Unfortunately for us, the fight made against such persons is for the benefit of the general public, and with them the fight must be made. A gentleman dislikes to go out of his way to mix up in a row with such men as these persons generally are, and when he does, if the general public could be made to see that the law is enforced, not from personal jealousy, through business motives or as a matter of persecution, but for their own good, then a conviction could be had. It is not possible to get a conviction in these cases unless the medical men *do* take an interest, because they are working in the field that will bring them in contact with violators of the law, and upon their information only can the grounds for an action be secured, and when once an action has been commenced, it should be so handled that the jury can be made to see why the action was commenced and why a conviction should be made.

To do this all complaints should be made by some one, away from the local fight, whose business it is to look up such cases and file the information against the defendant. By so conducting the suit, no local conditions can enter into the action, but a straight fight can be made to make all persons conform to the law because it is right; and besides, the public has a right to be protected. Then the fact that Dr. A, a local physician, had an encounter with the defendant, or there had been trouble in a certain drug store, all of which excited Dr. A to swear to a complaint against the defendant, the jury could not take into consideration in coming to a verdict; it should not enter into the case at all.

We have a board, or a man representing the board, who looks after such cases. He knows nobody's trouble, but is here to protect the community at large. In this way a member of the local profession will not have to quit his work and mix in a row or antagonize all the patients of the defendant. By such a system all illegal practitioners would be more readily reported by the local physician. A local medical society swearing to a complaint would be just as unsuccessful as an individual in fighting against such a defendant. If the same person conducted all such cases a record would soon be made of persons drifting from place to place practicing without a license. I would cite the federal courts in the prosecution of offenders, and the readiness with which a conviction is usually obtained, and compare them with the general criminal proceedings of any community. The national laws are enforced much more quickly and rigidly, because some one is always working for that purpose, and local affairs do not figure. The business of the complaining witness will not suffer if he swears to a complaint.

In the past year we have seen two trials in which the prosecuting attorney made a hard fight, but in both cases the local state of affairs prevented a conviction. The trials cost the friends of the defendant a thousand dollars, and the district attorney felt that his only way to win was to keep trying and make the business so unprofitable that the defendant would finally leave the country.

We have taken the pains to gather from reliable sources the work done by the State Board of Examiners, and find that they have spent money in prosecuting persons practicing in violation of the law and they have found convictions more easily made when conducted by them, than when left to the local district attorney. We think that it should be the duty of the Board of Examiners to conduct such prosecutions, and it is just as necessary that men who never have made application for a license or seen the inside of a medical school be hauled up as to require a high standard for admission to practice from those who have spent all the money they had endeavoring to acquire a medical education. Unfortunately, the board has troubles of its own, and as its supply of money is not by any means as large as the demands made upon its treasury, some help will have to be given, either by the State, *from where it should come,* or from the medical profession in the State.

The present method of organizing the medical profession may in the near future make it possible to get help in such matters, though it does seem unjust that the medical profession should tax itself to protect the people. The people should meet these expenses, for they reap the benefit. A patient who is informed that he has bright's disease and cannot be cured, or that he has a condition from which he can be relieved only by an operation, is in a frame of mind to accept the promise of a quack, and will readily give up money when promised a cure, or worse still, perhaps allow a malignant condition to advance past an operative stage. People who are imposed upon can only be protected by the profession showing them how and when their confidence is misplaced and stimulating them to enforce laws already enacted for their good.

There is another clause in the law whereby dishonest practitioners who have a license can have their license revoked; this also should be enforced. To this end the State Board of Examiners have also taken steps, but find themselves confronted by suits attacking the constitutionality of the act, and that feature of the fight is now pending in the courts. In all of these legal battles the business fight peculiar to any place comes at once prominently forward, and a defendant always tries to avoid conviction by pleading before the jury, persecution, business jealousy or personal grievances of the complaining wit-

ness. The complaining witness may be honest in swearing to the complaint, but generally he is incited thereto by some personal feeling; and if he has ever at any time in his life been a little off color the attorneys for the defense go back over his trail, and almost no one present will have much compassion for the complaining witness.

I hope that among you who are present, or those of you who may hereafter read this, and have influence that you can bring to bear, will do so. If a little more interest may be aroused on the subject, I will feel that the time we have consumed has not been wasted.

DISCUSSION.

Dr. A. B. Cowan said that the present was a fairly good law, gained after a hard fight. The law seems to be good and states fully what persons are to be considered as practicing medicine and what the penalties for doing so illegally are. He considered it the duty of county societies to see that suits against illegal practitioners were brought and properly fought. In his opinion the licensing of osteopaths nullified a goodly portion of the law, for they could do much harm, and it was not possible to get at them. He cited a case of strangulated hernia that fell in the way of an osteopath who counseled against operation; the patient died. District attorneys will do little or nothing; the socicties should see that the work is done.

Dr. Chester A. Rowell said that he had unfortunately not been present when the paper was read. As to the law, he had but little to say. It was prepared by a committee of the State Society and fought for by them. It had been a very difficult matter to make and keep any law regulating the practice of medicine for the past 25 years; the present law was a compromise, but he thought it a good one. He opposed the compromise made in letting the osteopath bill go through in order to get the medical law, for he considered it a bad compromise. The present law he considered broad enough to cover the ground, and he had no doubt that it would be supported by the Supreme Court.

Dr. Geo. A. Hare thought the whole subject needed plenty of illumination and discussion. There had always been a fight over any medical legislation, but that this was the case was largely the fault of the profession, for it was so poorly organized. While there are many doctors, they are or have been indifferent and organization has meant nothing to them; the whole question, he thought, hinged upon the intelligent and complete organization of the medical profession. When the bill was passed, it was fought for by the State Society, but the Society then had but about 400 members; now it has 1400 members at least and is representative of the whole State, and a large percentage of the physicians in the State. Individuals, he thought, could do but little to enforce the law; an organized profession could do a great deal by awakening public sentiment. He said that in Fresno County they were fortunate; no member of their society would refuse to swear out a complaint and the newspapers would help them; one of the papers would not accept quack advertising and was a stanch friend of the medical profession. He thought the day fast coming when every reputable doctor in the State would have to be a member of his county medical society, and then the public could not turn down the medical men in a community, for they would be organized and prepared to mold public opinion on such matters.

Dr. W. N. Sherman said that conditions in Fresno were ideal, for they had a large and harmonious county society, and could do a good deal in that way. In other places, where there were no county societies and the profession was not harmonious, little could be done.

Dr. Philip Mills Jones discussed the question of organization and its relation to this matter of properly carrying out the spirit as well as the letter of the law. The movement toward complete organization was spreading so rapidly that he thought it would not be long before all the quacks and illegal practitioners could be driven out. But county societies would have to help in the matter by looking after the physicians in their counties and reporting all illegal practitioners to the State Society office, or to the Board of Examiners. The Board should bring the suits in all cases, for it was the duty of the Board to protect the public by seeing that the law which they represent is enforced. The Board would very gladly help any community or any county society in the work, and if necessary would see that the suits were properly brought.

Dr. Cross, in closing, said that the value of organization could not be overestimated in this connection. With a harmonious organization these suits could be more easily and readily handled and convictions secured. Fresno and Tulare counties were opposites; in the latter there was no society and the profession was not at all harmonious. He thought it not right that he, as an individual, should be called upon to get into such a dirty mess as a fight against an illegal practitioner in order to protect the public, who turn around and "roast" the man who brings the suit and sympathize with the quack, whom they regard as a martyr to professional jealousy. The Board of Examiners should be kept at work on this thing, and if the State will not appropriate money for attorneys, then the societies should do so; but the work should be done and be done by the Board. If the quacks are prosecuted often enough and hard enough, they will be forced out.

NIHILISM IN THERAPEUTICS.

In an address to the Minnesota Pharmaceutical Association, under the above caption, published in *Northwestern Lancet*, October, Dr. Richard Olding Beard has some remarkably pertinent things to say; and he says them forcefully. He speaks of three factors that have lead the pharmacist from his former standing amongst the arts into the ranks of commercialism and away from friendly relations with the physician. "In the men—for you have filled the ranks of your should-be profession with imperfectly educated and poorly trained recruits." "In the matter of methods * * * you have too commonly permitted your licensees to prescribe as well as to dispense drugs. * * * You have frequently encouraged the practice of repeti..ionally filling prescriptions, often for miscellaneous employment, without orders from the writer." "In the matter of materials the indictment is fully as serious a one. You have not always required a sufficient guarantee of the quality of materials to the use of which your customers have committed their faith. A want of uniformity in the pharmaceutical preparations you dispense has prejudiced the possibility of a systematic study of their effects. Standardization of drugs is a very imperative need. You commonly keep upon your cabinet shelves preparations of whose composition you know little or nothing, whose virtues only

the advertisements allege, of whose adaption to the needs of patients you and they alike are ignorant."

(Possibly the organization of a Bureau of Standardization to certify to standard products, such as that proposed and being investigated by the American Medical and American Pharmaceutical Associations, would do much to remedy the evils pointed out for the X^{n}-th time, and here cited by Dr. Beard.)

COMMUNICATIONS.

Improper Advertising Methods.

To the Editor of the State Journal: Allow me to call to the attention of yourself and the readers of the JOURNAL a matter that seems to me of great importance in the preservation of the self-respect of medical men. Of late years we have been flooded with an ever increasing mass of so-called "literature" relating to patented pharmaceutical products, mostly of the coal-tar variety, reprinted from German publications. In most cases these preparations are not recognized in Germany at all; such write-ups, destined to increase the tribute from gullible foreigners, are more easily obtained in Germany from professors and their assistants than in this country, where ethics have caused certain restrictions to be placed on commercialism. This stuff goes into the waste-paper basket at once, or should do so, but it is none the less a nuisance. If we refuse to read the "literature," why should we not refuse to see the persons sent out by the manufacturers to interview doctors and mislead them into considering or using these worthless preparations? As a rule these agents are ignorant of anything save the words that are put into their mouths by their employers, and they assume a knowledge that they do not possess, often in a most aggressively impudent manner. Other preparations are advertised to the public, on billboards, fences, at the corner grocery, in the daily press, etc., and in a most offensive manner. Yet the manufacturers of these preparations still have the audacity to ask the medical profession to recommend their nostrums and their unethical and improper preparations. Bribery, in the form of "samples," "presents" in the shape of paper-weights, calendars, penholders, etc., is also employed and probably reaches a certain number. But these things are not right; they are not even decent. If a manufacturer has a good and worthy preparation to present to the medical profession he may do so in a proper, decent and dignified manner, using honest and proper means of advertising the merits of his preparation to the profession. Why should medical men submit to be rivals of the billboard and the fence, or to be the dumping ground for the lies, either written or printed, which unscrupulous foisterers of nostrums, patented worthless preparations, etc., may choose to unload upon them? Samples are, as a rule, either used to experiment upon some charity patient or are sold to ignorant patients; either procedure is to be most strongly condemned as improper and unethical. Let us by all means strive to put a stop to this prostitution of our profession. The sign on the doorstep which reads, "No peddlers or agents wanted!" applies, in my estimation, to all "detail men," "special agents," and others employed to disseminate this sort of trash, and I invariably call their attention to this interpretation. Unquestionably there are reputable manufacturers doing business in a proper manner, and doubtless represented by well-educated and reputable "detail men"; but they must suffer for the sins of the great majority who certainly could not be included in this class. If they slightly modified some of their methods and then exerted their great influence, this better class of manufacturers could do much to restrain the irresponsible class from using these many improper advertising methods.

Very truly yours, DUDLEY TAIT.

Discussion of Dr. Sherman's Paper, August Journal, Continued.

To the Editor of the State Journal: — There are some things to say in reply to Dr. Tait's letter which appeared in your Journal of last month. In the first place, I am not at all interested in the personal invective indulged in by Dr. Tait, nor do I intend to retaliate along that line. When one is attacked personally in public, it is necessary to defend oneself, and that is all I wish to do.

Now for the argument. Dr. Tait says he "endeavored to call attention to two distinct points. First, the necessity of rigorous methods in order to avoid errors in diagnosis from contamination." He then says "that to submit a specimen to a long journey prior to subjecting it to culture is not in accord with the precision demanded by modern bacteriologic methods." This objection has already been answered. The specimens sent twice to the laboratory were well protected, being wrapped in many layers of sterile gauze, and then surrounded by gutta percha tissue. Mere length of journey is no argument as to contamination. It is the way in which the specimen is protected that counts. It is quite possible to get a large amount of contamination by carrying an open basin from an operating room through a dusty hospital hall to a laboratory; whereas, on the other hand, some manufacturers ship quantities of sterile Agar Agar culture tubes to California and I have never seen one of these contaminated. Instances of this kind might be multiplied to show that mere length of journey is not the factor to be considered.

Dr. Tait continues: "I further remarked that the first indispensable step in all bacteriologic diagnosis consisted in making a smear for direct examination." As a matter of fact the Doctor did not make that remark to my knowledge. Had he done so, or had he asked what had been found upon the smears, my attention would have been called to the point, and I could have told him that a smear had been made. This rule is so simple and so important that any one who has any laboratory experience at all does it as routine; and it is a routine for all specimens sent to my laboratory—though I find that when the clinician makes the culture I never receive a smear. Now for the findings on the smear. There were present many pus cells and detritus; no bacteria seen. When we remember the comparatively few colonies which developed in culture, we can see the reason why none were found on the smear in an ordinary examination.

The remark which Dr. Tait did make was the following: In citing a hypothetical case he said, "If, for example, we take a specimen of pus from an acute otitis or a marked appendicitis, and examine immediately with or without stain, we shall notice an extreme variety in the morphologic aspect of the specimen. Upon culture of this pus on the ordinary media we shall be surprised at the enormous disproportion between the abundance of microörganisms found upon direct examination of the pus and the small number of colonies developed." This statement as it stands might be criticized severely. It is not of universal application to cases of marked appendicitis. Some cases of appendicitis showing numbers of microörganisms upon smears, show also an enormous number of conglomerate colonies upon cultivation on the ordinary culture media, even after a short time in the incubator.

Now, as regards Dr. Tait's further contention: "If no bacteria be found (on smears), cultures may be dispensed with." This is an error so glaring that any one who has any laboratory experience at all will immediately recognize the falsity of the statement. In proof of this I might state a few well known facts: It is very unusual to find bacteria on smears made from the blood in such diseases as typhoid fever, whereas it is a common occurrence to obtain these bacteria from the blood by means of culture. Also, I might mention what is familiar to all laboratory workers: That often in cases of tubercular serous effusions, one might spend hours and even days looking for the tubercle bacillus on smears without finding one, whereas, using the peritoneal cavity of a guinea pig as a culture tube, so to speak, and injecting a quantity of the fluid, one will get results in a few weeks by the development of tuberculosis in the animal.

To consider further Dr. Tait's letter: He says, "the first indispensable step in all bacteriological diagnoses consisted in making a smear for direct examination * * * * Had Dr. Halton pursued this well-known laboratory method all criticism and discussion would have been avoided, for no one denies the pyogenic properties of Friedlander's bacillus."

Compare this with Dr. Tait's contention in his previous communication: "Dr. Sherman's findings are certainly interesting, and I beg to remind him that with the aid of modern laboratory methods his conclusions might have been, or rather most probably would have been, entirely negatived." One month ago Dr. Tait thought that Dr. Sherman's results "most probably would have been

entirely negatived" despite the fact that he knew that an agglutination reaction had been obtained with the patient's serum and the Friedlander's bacillus. This month he is willing to acknowledge that "no one denies the pyogenic properties of Friedlander's bacillus," and that criticism and discussion might have been avoided had a cover-slip been examined. These statements are, to say the least, somewhat incompatible.

With reference to the silence of American writers on the subject of the anaërobic bacteria, and my claim that their silence was probably due to negative results obtained, I would like to call attention to the fact that it was an American observer, Dr. William H. Welch, who first discovered and described the important anaërobe, the Bacillus Aërogenes Capsulatis, the bacillus of emphysematous gangrene. The following year Frankel confirmed his work and since then it has been corroborated by a host of observers. I would also like to call attention to the well-known fact that Dr. Welch is at the head of the pathological department of Johns Hopkins, an institute of whose work Americans may well feel proud; and though Dr. Tait claims that there is an "absence of complete bacteriologic diagnostic methods" in this institution, we have to thank it for some very valuable bacteriological discoveries during the past few years, among which stands prominently the splendid work done on the causation of tropical epidemic dysentery, and the putting of that disease on a sound etiologic foundation.

Also of American institutions Dr. Tait attacks the Massachusetts General Hospital. This institution also has done some creditable work. Dr. Wright's papers published during 1900 and 1901 would indicate that some work was done with anaërobic bacteria. "A Simple Method for Anaërobic Cultivation in Fluid Media," by Dr. James H. Wright, *Jour. Boston Soc. of Med. Sciences*, Vol. IV, No. 5. *Centralblatt für Bact.*, Vol. XXVII, No 2. "A Method for the Cultivation of Anaërobic Bacteria" (*Centralblatt für Bact.*, Bd. XXIX, No. 2, 1901).

We might come nearer home and find further proof that the anaërobes are not always ignored. In a paper entitled "Acid Proof Bacilli in Five Cases of Pulmonary Gangrene," *Jour. Med. Research*, Vol. VIII, No. 1.) Dr. Ophüls of Cooper Medical College demonstrated the presence in numbers of an acid proof bacillus resembling B. Romesus of the French writers; but this bacillus did not grow under anaërobic conditions. (Once it grew for a short time under anaërobic conditions.) Nor did any other anaërobe grow in his cases.

As regards the anaërobes: It was Pasteur, I believe, who first succeeded in demonstrating that putrefactive processes are due to anaërobes.

During the last few years Veillon and others of the French school have studied the presence of anaërobes in processes of a fetid and gangrenous nature.

As stated by Rist in a review of the work of these observers:

"*Durch diese Experimentalergebnisse belehrt, machte nun Veillon die Hypothese das bei allen fötiden und gangränösen Prozessen anaërobe Bakterian thätig sind*" (*Centralblatt für Bact.*, 1901, p. 290) . . .

"Instructed by these experiments, Veillon established the hypothesis that in all fetid and gangrenous processes anaërobic bacteria are active."

It is still a question how great is the part played by the anaërobes in the causation of these fetid and gangrenous processes. They are found in almost constant association with a known pathogen, and this complicates the question. The cases in which they have been found alone are still too few for definite conclusions. As Rist himself says in his review of this work:

"*Die Wichtigkeit ihrer Rolle durfte aber nur durch zahreiche systematisch durchgeführte Untersuchungen festgestellt werden.*" (*Centralblatt für Bact.*, 1901, p. 290.)

"The importance of their role can be substantiated only by means of numerous systematically conducted experiments."

The mere predominance of the anaërobes in the pus of some cases is not proof of their primal pathogenicity. There is always more or less dead organic matter in pus, and this would afford good culture media for saprophytes. The very quotation to which Dr. Tait gives weight may be taken as evidence that the anaërobes follow on a pathogenic process already established, and that their role is secondary: "The later the surgical intervention the more varied the bacterial flora of appendicial pus."

It may be, as has been suggested, that in those cases in which a known pathogen is found with an anaërobe, that the pathogen and the anaërobe act conjointly in such a way that the known pathogen produces necrosis and injury to the tissues to such an extent that the more or less saprophytic anaërobe can develop in them and assist in producing the fetid and gangrenous lesion.

As far as the experiments on animals go, several objections might be raised, among which I might state the fact that numbers of bacteria, which are pathogenic for animals are not pathogenic for man.

But all this argument has nothing to do with the case in hand. Dr. Sherman's case, as I said before, does not come in this category, being not of a gangrenous nature, and as I should have said, not fetid. Among Veillon's own 22 cases of appendicitis, which he examined for anaerobic bacteria, there was one—a very mild case—in which he found only the pneumococcus. This case was similar to ours.

Again, we have Rist's opinion: "Clinically, I think that the presence of anaërobic germs in pus points to a severe form of infection" (*Br. Med. Jour.*, Oct. 12, 1901) whereas, our case was a very mild one.

As regards Dr. Tait's contentions about belief in sterile pus: Dr. Tait claims that through the observations of Veillon and his co-workers in finding the anaërobes in pus: "Belief in the frequency of sterile pus has been shattered." Just three paragraphs before this remark Dr. Tait is seemingly advocating a theory of the existence of sterile pus himself: "making a smear for direct examination. If no bacteria be found, cultures may be dispensed with."

MARY HALTON.

The Proper Spirit—The New York Obstetrical Society, one of the most famous and useful of the older organizations in this country, was limited by its charter to 15 members. When five, eight or ten congenial medical spirits get together and fail to have an interesting and instructive meeting it is not the fault of those who are absent. One of the most useful societies the writer has ever known was organized by him on a chance visit in a county containing but four physicians. They were torn by the usual wrangles and dissensions, and the profession was at a low ebb. Three of them were comparatively young men, and after getting together in their society, and understanding each other, one after the other in turn went away for post-graduate work, the others dividing his work and giving him the proceeds. One of them had a taste and ability for surgery, and by an equitable and satisfactory arrangement he did that part of the practice which had formerly been sent away or been done by surgeons called from a distance, at far greater expense and probably no better results, or more frequently the cases were left to suffer and die without attempt at relief. Under better business methods a large element in the community which had found it cheaper to change physicians than to settle their accounts, although abundantly able to do so, were induced to contribute their part to such a support of the profession as enabled its members to qualify and equip themselves for the benefit of these as well as their more honest neighbors. This society was as much a blessing to the people of that community as to the profession, and organized and conducted in the proper spirit this will always be true. —J. N. McCormack, in *Journal A. M. A.*

Antenatal Rigor Mortis—Two cases are reported by Paddock and others referred to in the literature. He supports the probability of rigor mortis occurring in the fetus by the animal experiments of Tissot, showing conclusively that such a condition does exist. From a medico-legal standpoint it must be admitted that it can occur before birth as well as after. The existence of a new-born dead infant in rigor mortis is not a necessary proof of a life apart from the mother, but it does prove that the fetus was alive shortly before or during birth. The condition often complicates delivery by interference with its normal mechanism.—*Journal A. M. A.*

Dr. J. H. Musser, Philadelphia, wishes to warn the profession concerning a young man who pretends to be his nephew and on various pretexts secures money—mostly from Dr. Musser's personal friends. Dr. Musser has no nephew by the name of Musser, and knows of no one who dares use his name in any scheme whatever. Mr. P. Corzelius, representing the American Medical Association, has a letter from Dr. Musser, as well as other means of identity for the purpose of carrying on his work. Dr. Musser wishes other journals to circulate this warning.

OREGON STATE MEDICAL SOCIETY.

THIRTIETH ANNUAL MEETING.

Reported by PHILIP MILLS JONES, M. D.

The 30th annual meeting of the Oregon State Medical Society was called to order at 10 o'clock on the morning of Tuesday, September 29, by the President, Dr. H. W. Coe. The sessions were held at the Elks' Hall, Portland, and were well attended. The house of delegates met at 9 in the morning and the general sessions at 10. This hardly gave the delegates sufficient time in which to transact the business of the society, and some things were passed over which should have received more attention. On the whole, and with this exception, the meeting was generally regarded as very satisfactory and the operation under the reorganization plan, which it initiated, was looked upon with favor. The following program was presented and all of the papers save four (which are indicated) were read and generally discussed:

Annual Address by the President, Henry Waldo Coe, Portland; Address of Welcome, Mayor George H. Williams; Report of Chairman, Board of Council, Calvin S. White, Gervais; "Osteomyelitis, With a Report of an Unusual Case," Joseph S. Courtney, Dayton; "The Higher Education a Cause of the Physical Decay of Women," F. W. Van Dyke, Grants Pass; "Technique in General Anesthesia," Joseph Sternberg, Portland; "Some Observations on the Arid Region," Franklin Cauthorn, Portland; "Tuberculosis," Edward A. Pierce, Salem.

X-ray Symposium—"What is the X-ray?", Richard Nunn, Portland; "Technical Management," George E. Houck, Roseburg; "Diagnosis of Fractures," George F. Wilson, Portland.

Therapeutics—"Cancer," Robert C. Coffey, Portland; "Skin and Glands," Luther H. Hamilton, Portland.

Nervous and Mental Diseases—"The Paranoiac," Walter T. Williamson, Salem; "The Neurasthenic," J. Allen Gilbert, Portland; "The Pervert," James P. Tamiesie, Hillsboro; "The Syphilitic," William House, Pendleton; "The Tubercular," Woods Hutchinson, Portland; "What Can We Do For Them?" John S. Klober, Green River Hot Springs.

Kidney Symposium—"Modern Methods of Diagnosing Kidney Disease," Albert E. Mackay, Portland; "Dietetic Treatment of Various Forms of Kidney Disease," Charles J. Smith, Pendleton; "Drugs Used in the Various Forms of Kidney Disease," James F. Bell, Portland, (read by title); "The Pathology and Treatment of Tubercular Kidney," James B. Eagelson, Seattle (read by title); "Causation and Pathology of Chronic Bright's Disease," Woods Hutchinson, Portland; "Pyelitis," William H. Byrd, Salem (read by title); "Renal Calculi," William Jones, Portland (read by title); "Anuria," Park Weed Willis, Seattle; "Indications for Nephrectomy," Kenneth A. J. Mackenzie, Portland.

The President did not make an address of the usual sort, but simply outlined the work of organization along the lines proposed by the A. M. A., and pointed out how very desirable it was to have everything so arranged that the county society would dovetail into the State Society, and it in turn into the A. M. A. He then introduced the Mayor of Portland, Mr. George H. Williams, who extended to all a most cordial greeting to Portland and congratulated the society upon its work and its showing. He gave an outline of medical work and medical progress, as it came within the view of a layman, and called special attention to the ever-increasing efforts of medical men for prevention of disease as well as in its cure.

Dr. Calvin S. White reported for the Council and said that body had had two meetings, on July 26 and September 29, and had accepted in affiliation with the State Society the following county and district societies: The City and County Medical Society of Portland, Eastern Oregon Medical Society, Southern Oregon Medical Society, and the Lane, Yamhill, Marion and Clatsop County Medical Societies. The Council granted one year for all members of the State Society who were not members of these component societies to join one of them.

On motion of Dr. Franklin Cauthorn, a committee of three was appointed to take in hand the matter of securing subscriptions to a fund to be raised for the purpose of erecting a monument to the memory of the late Dr. Walter Reed. Drs. Cauthorn, Wheeler and Fulton were appointed on the committee.

The first paper of the meeting was read by Dr. Joseph S. Courtney, on "Osteomyelitis." In his opinion the subject, a large and exceedingly important one, did not receive sufficient consideration at the hands of writers in the medical press. Such reports as printed were generally incomplete. In the past 12 years he had seen 17 cases of this disease, and in his opinion the cause in 75 per cent of the cases, at least, was traumatism; tuberculosis and typhoid were also to be reckoned with as causative factors. He mentioned one patient who developed this disease six years after recovering from typhoid, and the typhoid bacilli were to be found in the pus at the site of the disease, which was in the tibia and fibula of one leg. All of the 17 patients seen by the writer were boys, in age from 8 to 17 years. He dilated on the fact that the disease was found very much oftener in boys and men than in girls. It is

frequently due to injury by puncture, as in the penetrating wound of a shot, in which case the entire medullary canal will very quickly become involved and the disease rapidly terminate in the death of the patient. The amount of pain is not an index of the extent of involvement, but is fairly diagnostic of the condition. There is a continuous aching and a feeling as though the bone were being crushed. The pus is at first clear, but turns greenish and bad smelling as the disease progresses. Pyemia should always be looked out for, and guarded against if possible. As to the treatment, there seemed to be a difference of opinion as to the desirability of very early operative interference. In his opinion the earlier the operation was performed the better was the outlook for the patient. A thorough operation was the only thing to be considered. Make an ample wound and fully inspect the bone at the site of the trouble and in the vicinity. Make free use of the bone drill and the chisel and get away all the diseased tissue. Amputation in the continuity was bad treatment; disarticulation at the nearest joint was better if the condition necessitated such an operation. The case recited was that of the occurrence of the disease in the heel of a boy 13 years of age. The boy struck his heel on a rock and almost immediately experienced violent pain; this subsided for 12 hours and again appeared, not to leave. He was seen by the writer 72 hours later, when the temperature was 99 3-5 and the pain so intense that one-half grain of morphin hypodermatically had but little effect. The next day he operated, but there was nothing to be seen save some redness and increased vascularity. After 36 hours thin pus appeared, which subsequently turned to a greenish color. Calcium sulphite was given freely. Pain continued and ten days later a second operation was performed, at which time a section of the os calcis was made and almost all of the bone except the articular surface removed. It was well scraped and packed with iodoform gauze. It is now four months since the operation and there is little impairment of function, and the heel has filled out so that the original shape is nearly restored.

Dr. K. A. J. Mackenzie opened the discussion and said that he considered typhoid quite as important in causation as traumatism or anything else. In many cases the cause was hard to explain, though it undoubtedly must be due to pus organisms, as are other infections. In many cases it is difficult or impossible to show that traumatism has played any part whatever in causation. In 75 per cent of cases it seems to be confounded with rheumatism. The first doctor who sees a case of this disease generally determines its end; for if he makes the proper diagnosis at once, and early, there is good chance for recovery following operation. But if the diagnosis of rheumatism be made and the patient allowed to drag along until the disease is far advanced, there can be but little hope for the patient's life. In advanced cases even disarticulation was followed by a high mortality, and sometimes radical operation on the site of the disease seemed to have a better result than disarticulation. Slit the shaft and treat as a large open wound, allowing for ample drainage. The proper making of an early diagnosis is by far the most important point to be raised. This is considered difficult for the reason that the disease generally appears near the end of a long bone, near a joint, and is confounded with rheumatism.

Dr. George Wilson called particular attention to the wrong diagnosis of rheumatism in these cases. Rheumatism should be forgotten and osteomyelitis always suspected in all cases in children where pain near a joint is found, for rheumatism is practically never localized in one spot. There is but one thing to do, and that is to operate at once. Cut down, incise the periostium ,and if there is not relief at once, open into the bone until you find the trouble.

Dr. Andrew C. Smith stated that one of the first papers read before the society, now many years ago, was one by himself calling attention to the importance of this disease and its careful consideration. In his opinion this is one of the most important diseases which medicine has to deal with. Too often the condition is wrongly diagnosed as rheumatism and the child treated for that until his life is sacrificed or he is crippled for life. One should never think of rheumatism in a child; think always of osteomyelitis until it is absolutely disproved. Severe pain in one end of one long bone always means osteomyelitis and nothing else, and in the name of the Continental Congress and the great Jehovah, he could not see why so many fatal mistakes were made. He maintained that there could be no such thing as symptomatic treatment; there could be but one treatment—operate at once, without waiting for anything. If necessary, cut down with a jack-knife and open into the bone with a gimlet, but do it at once; delay is fatal. In his opinion too much had been said about traumatism. Pyogenic infection, carried in the blood and lodging in the terminal vessels where congestion resulted from a slight blow, was probably the cause; the traumatism might be insignificant and impossible to determine. With pain at one end of a long bone and an immobile limb, don't wait for anything; make the diagnosis at once and operate at once; it can be nothing but osteomyelitis. He disagreed in the matter of the proper operation in advanced cases. Amputation through the diathesis was better than disarticulation, he thought, and then thorough cleansing of the medullary canal should follow at once. While the subject is an old one, he thought it should be brought up at every meeting and discussed at length. He cited the case of a child that had been treated for rheumatism for weeks by a man who claimed to be a surgeon, when the diagnosis was finally made it was too late.

Dr. Yocum of Tacoma raised the important point of insisting that the parents agree to any operation thought necessary, for often the condition was found at the time of operation to be more serious than had been thought. He mentioned a case that had been diagnosed as osteomyelitis, but on operation was found to be carcinoma; no permission to amputate had been secured and the operation had to be abandoned.

Dr. R. C. Coffey agreed that there was but one treatment, operation, and that the failure of diagnosis should not so often occur. He considered traumatism, though a small factor, of great importance.

Dr. George E. Houck recited a recent case of double osteomyelitis in the ends of both tibia and ankle joints that had been diagnosed and treated as rheumatism. Free incision gave immediate relief. Con-

servative surgical treatment was being pursued and the patient was improving.

Dr. J. G. Courtney closed the discussion by saying that he only waited ten days for the second operation because he could not sooner persuade the parents of the child to have it done. He said that he must maintain the fact that traumatism, at least in all of his cases, was the causative factor. He thought treatment directed to prophylaxsis was warranted under the evidence of frequent pyemia.

The second paper was by Dr. F. W. Van Dyke, on the subject of "Higher Education of Women Being a Cause of Their Physical Decay," In his judgment, while the causes were many, certainly the rushing process during the years when a young girl is developing into a woman, when the strain upon her nervous system should be the least, and generally is the most, is the main cause for poor development. Too much time, money, strength and nerve energy are wasted in wholly useless studies.

"No girl is considered cultured unless she has broken her health down trying to learn music, Sanskrit root, Browning and Emerson at some fashionable female college. Of all these products of the higher education or culture—call it what you will—about one-fourth marry and produce one and one-quarter children each, showing how merciless nature is in her effort to eliminate the unworthy. At a time when they should be in the open air playing, or at least studying within their limits, girls of a tender age are forced to the utmost effort they are capable of, for unfortunately the curricula of all schools, colleges and universities are no longer constituted to fit the average pupil, but the talented." After pointing a moral of statistics of would-be musicians, he said: "Not one pupil out of 500 can play Hiawatha correctly. Every physician knows that the cramming process in the vast majority of cases, when applied to mediocrity, is the cause of hysteria, neurasthenia, dyspepsia and astigmatism." He dilated on the bodily imperfections resultant from over ardent pursuit of knowledge; he spoke of the meager breasted, the ugly, the chilly-hearted, and denounced the modern priestess of the muses as an anomaly not to be got rid of any too quickly. "Confinement in school and hard study takes away desire from woman and that physical beauty so attractive to men. Imagine, if you can, a novelist writing in this vein: 'She was pale, thin and plain-looking, with a peevish temper caused by ill health, but Armand loved her devotedly, passionately, though lacking youth and beauty and being of a cold nature, for great was her knowledge of theosophy, the lore of the ancients, and differential and integral calculus.' Why, even Marie Corelli wouldn't think of a man falling in love with such a heroine.

"It is not to be assumed from this paper that the sole object of a woman's life is to marry and raise children, nor should she be brought up in ignorance. A woman with talent or genius should have it developed to the fullest extent, but the constant effort being made to make ordinary ability keep pace with well-defined talent is predestined to failure."

He denounced the modern methods of marriage as calculated to increase a race already degenerate enough and said that the only marital happiness was that due to the union of two healthy people. He ended: "Penelope, the faithful wife, Cornelia, the proud mother whose children were her jewels, Thusnelda, the ideal of the ancient Germans, and St. Elizabeth, the personification of Christian faith and charity, knew nothing of soul yearnings, telepathy, psychology and other useless things, but they possessed those womanly qualities which have sent their names down the ages and will continue to do so until the name of the last graduate of Wellesley, Vassar and Bryn Mawr shall have faded from the recollection of men forever."

Dr. Mae Cardwell opened the discussion on Dr. Van Dyke's paper by saying that the matter was certainly of the first importance. She disagreed with the writer in thinking that higher education had much to do with lack of proper development, and called attention to the fact that the forcing process referred to occurred generally before higher education was thought of, and while the child was in school. Girls between the ages of 11 and 13 should have plenty of play, outdoor exercise, etc.; but as a matter of fact they are usually in school at this time, climbing stairs, leaning over desks, and getting but little good fresh air. They get headachy, nervous, fidgety and do not properly develop. They are apt to suffer from menstrual derangements from the first, and by the time they reach the "sankskrit root" stage of education, the harm is done. As to the many evils of improper pelvic development, she called attention to the fact that difficult labors, lacerations, etc., are common to savage tribes and that forceps were invented before higher education was thought of. She thought a study of music a good thing, and while not denying the existence of sex attraction, she thought that other attractions should not be forgotten, and among these certainly a proper education was a prime requisite.

Dr. J. A. Fulton expressed his opinion as being somewhat at variance from that of the writer. He thought lack of proper exercise at the period of development was the main cause and that higher education had little to do with it. The boy is taught to play out of doors, but the girl is prevented from doing so and is taught to play with dolls, learn music, whether she has any ability or not, and is generally prevented from leading the healthful out of door life that she should, during the years of pelvic development especially.

Dr. Woods Hutchinson thought such questions should certainly be brought up and discussed at medical society meetings, for a proper understanding of them by physicians is very desirable. He denied absolutely the question of physical decay. In his opinion woman was a better physical animal now than ever before; instead of deteriorating she was developing. Neither male nor female of the human race showed any signs of physical decay; rather the reverse. Too much time devoted to music and fancy work to the injury of the girl by depriving her of sufficient outdoor exercise certainly must be deplored. As to sex attraction and its possible loss through study, he could not agree. Certainly it existed and was to be reckoned with. Many centuries of generations had lapsed in the building up of sex feeling in the female and he doubted that a few generations of study could destroy it. Unhappy marriages exist, and have always existed. In England, where divorce is almost unobtainable, they are most common. Divorce should be made easier and it should be resorted to more early and before children are born into unhappy households.

Dr. Van Dyke closed the discussion by calling attention to the fact that higher education, according to the title of his paper, was "a" cause and not "the" cause.

"Technique in General Anesthesia," by Dr. Joseph Sternberg, was the next paper read. The writer made a strong plea for a careful study of the question and the necessity for securing a proper knowledge of the physiologic action of anesthetics before undertaking to use them. The general practitioner is not a good man to give an anesthetic, because he does not know enough about the subject. In all

cases the patient should receive a thorough examination. If possible the anesthetic should be given on the operating table, and not in some other room. If the confidence of the patient is first secured and proper suggestion made, the anesthetic will be more easily taken. The patient should not count and the anesthetic should be given slowly. The anesthetist should carefully watch the expression of the face and so avoid irritating the air passages by giving the anesthetic too rapidly. Pure ether should never be given; air should at all times enter the lungs. The object should be to give as little as possible. All patients do not require the same amount and each patient should be studied by himself. He pointed out the various signs and indications that should be watched for. Respiration, auditory impressions, pulse, heart action, color of the face, eye reflexes, etc., dwelling on each and giving it its due weight. He thought anesthesia should never go beyond the point where the pupil reacts to the first incision.

Discussion was opened by Dr. A. E. Burns, who said that he thought the subject of the first importance. He had seen patients pass away when he was sure it was due to too much anesthetic, or an anesthetic improperly given. The subject should be carefully studied by the man who gives anesthetics.

Dr. Andrew C. Smith considered that too much importance could not be placed on the desirability of giving the anesthetic on the operating table. Valuable time is lost in moving the patient from another room or another floor.

Dr. J. A. Fulton thought that too many operators lost valuable time in talking, etc., after the patient was anesthetized. The patient should be under the anesthetic for the least possible time.

Dr. H. W. Cardwell said that when he was an interne and was expected to give anesthetics he first studied the effect upon himself. With other internes around, he proceeded to lie upon a table, plug one nostril and insert a tube from the ether bottle into the other. At the end of fifteen minutes he was in a condition of surgical anesthesia, as indicated by all the classical signs, yet he was fully conscious of what was said and done around him. He called attention to the fact that operators should be very careful of what they said and did when they thought the patient fully anesthetized, for the patient might be able to hear and shock might be caused by this fact. He recalled many cases of shock that could not be explained and it might have been due to the patient hearing something that had been said as to his condition.

Dr. J. S. Klober thought that often the patient's strength could be conserved by beginning with nitrous oxid and following up with ether or chloroform. When possible the stomach should be washed out before the anesthetic is given, and thus nausea prevented. He had found that hot water irrigation in the stomach during an operation would often be a great help and that very weak patients could be operated upon if this procedure was employed.

Dr. Robert C. Coffey considered the discussion of this subject of the greatest value. The patient's face should be carefully watched. The anesthetist should be a specialist and should be most carefully trained in his work. He said he had to give an anesthetic a short time before and did not know the condition of his patient when under. He felt his own inability and suggested the dangers that might ensue when the anesthetic is given by a man who knows little or nothing about it.

Dr. J. A. Pettit said that it was all right to say that a specialist should always give the anesthetic, but very often a man had to give it himself. He had to depend on the best available, and specialists in this line are scarce in country districts. He considered the gaining of the patient's confidence the most important thing, and suggestion would do a great deal in relieving shock.

Dr. Franklin Cauthorn said that there was danger in such discussions, for while there was undoubtedly a place for the specialist in anesthetics, still doctors had to get along without them in a majority of cases, and they should not be scared from doing so by looking too much at the dangers. He had abiding confidence in the good common sense of the average general practitioner, and he knew that men all over the country were every day giving anesthetics without bad effects. Realize the dangers, but do not fear them, should be the word to every physician. Disaster is apt to come in the early stages and without warning; no amount of care seems to prevent these catastrophies.

Dr. H. W. Cardwell said that accidents in the early stages did not come without warning if a man knew what to look for and how to guard against it. A man to be a competent anesthetist should study the language of his subject, and learn to rightly read the signs that nature puts out. If he knows his subject he can prevent 999 out of 1000 accidents, for he will see them coming.

Dr. B. A. Cathy said that the general practitioner in a small place could never have an expert anesthetist at hand and had to give his own anesthetic. Great care should be taken, of course, but with care there is little danger in giving an anesthetic.

Dr. H. A. Kissam considered idiosyncrasy an important matter and not to be disregarded. Some sudden deaths he placed at this door. The danger signs should be carefully studied by all, but they should not be given too much weight; in general the use of an anesthetic is not accompanied with much danger.

Dr. E. P. Gerry accentuated the importance of suggestion, calling attention to the fact that suggestion alone is sufficient in some instances to place the patient in a condition to be operated upon, and if combined with an anesthetic, is of inestimable value.

Dr. W. B. Morse said that it was all right to have a specialist if possible, but that it was more often impossible. When there is something to be done, do the best you can. He had made use of all sorts of assistants in giving an anesthetic, including Indians and Chinamen, and with good results. One should never refuse to do anything indicated just because there is no expert handy.

Dr. Sternberg, in closing, said that he did not go much on idiosyncrasy, and that most deaths assigned to this cause were due to lack of information on the part of the man giving the anesthetic. If the anesthetist is properly posted he will see what is coming and avoid it. It is very seldom necessary to give atropin if the anesthetic is properly handled.

Dr. Franklin Cauthorn, of the special committee on the Dr. Reed memorial fund, reported that the committee had drawn up the following preamble, and would be pleased to have the members subscribe to it during a recess:

We, the undersigned, agree to pay the respective sums set opposite our names, for the purpose of erecting a monument to the memory of the late Dr. Walter Reed, U. S. A., the distinguished American physician whose discoveries in connection with the subject of yellow fever have shed such luster upon American medicine and have conferred and will continue to confer such untold blessings upon humanity.

He said that the profession of Oregon should, at least do something, even if it were no more than to place one brick or one stone upon the monument to such a noble man.

"Some Observations on the Arid Regions," was the title of the next paper, read by Dr. Franklin Cauthorn. He had spent three and a half years in the arid regions of the southwest and had studied them

carefully. Too little information was possessed by the average physician who sends his tuberculotics to Arizona or the southwest, without specifying what portion was best adapted to the individual patient. The first impressions of the country were apt to be unpleasant, and the physician should therefore impress upon the patient that the struggle is to be a long one and that he must have lots of patience. After staying a while most people grew to like the country and the feeling of desolation leaves. Some patients felt this so keenly that they would rather go home and die than stay and get well. The principal feature of the country is the ever-present sunshine. The climate varies much in different localities, but the winters, as a rule, are cool, and in some places cold. Almost any altitude, from sea level to 4000 feet or higher can be secured. The place selected should be sheltered from winds, which in some sections are strong and unpleasant. Some parts of California are indeed warmer and more arid than Arizona. The heat is not objectionable, for, in the words of a resident, "It don't do 'em any harm to sweat." The climate acts in two ways; it discourages the growth of bacilli and it helps to build up the resisting powers of the patient. Physicians should always say where the patient is to go, and should never send hopeless cases away from home to die, alone and in a rather depressing place.

Dr. Harry Lane opened the discussion and said that while he had been sending patients to Arizona for some time, he had only recently seen it himself. And he was not at all impressed with what he had seen. He visited the Army Hospital at Silver City, but the trouble with it was that soldiers were not admitted till after they were discharged and so there was no control over them; as soon as they felt a little better they ran away. Statistics from there are consequently unreliable. He thought the country lonesome, the food bad and the place generally uninviting. Many places are very windy and the wind blows forty miles an hour all the time. Much trouble arises from patients not staying where you send them. If you send a patient to Tucson, he goes to Phoenix, or vice versa. The climate is probably good, but it is difficult to get patients to do what you tell them and to live as they should.

Dr. C. J. Smith thought that too little study had been given to the climate of eastern Oregon, where there was much arid country and the climate was excellent. Altitudes ranging from 300 to 5000 feet were to be found there and many places sheltered from winds were available. He also complained that physicians were too vague in their directions. Patients were sent to "eastern Oregon" without any directions as to what part; and it is a large section.

Dr. J. D. Courtney asked whether the climate of the southwest was good for patients in the stage of hemorrhages, and whether the altitude had any injurious effect in such cases.

Dr. W. O. Spencer called attention to the advantages of eastern Oregon, its arid condition and light rainfall.

Dr. A. E. Burns thought that patients needed a good deal of looking after in the matter of detailed instruction as to the proper mode of life, advice, etc. He also thought that too little attention had been given to the fact that it is very important to keep them occupied and amused.

Dr. K. A. J. Mackenzie said that he had been sending patients to various parts of the Coast, including eastern Oregon and California, but that he never saw any particular good results until he commenced sending his patients to specified parts of southern Arizona. No patient that he had sent there failed to improve and most of them underwent a complete arrest of the disease. He did not think it safe to call them cured, but the disease had stopped. The dryness and the outdoor life, together with proper exercise, he considered the prime factors in securing the desired result. Probably any place that showed the same number of hours of sunshine per year and the same dry air, would also show the same number of great improvements.

Dr. Cauthorn said that Dr. Lane was a good example of the depressing effect of the country at first; later one got over that feeling. Isolation is very trying and may be bad for some patients. Advanced cases should never be sent there to die. Altitude did not seem to predispose to hemorrhages, nor to have any injurious effects in that direction.

The X-ray symposium was opened by Dr. Richard Nunn, with a paper on "What is the X-ray?" He said that we do not know anything about it absolutely, but only relatively. He went over the physics of matter and force and of radiant energy, discussing the ionic charge of atoms, etc., and indicating his belief in the existence of one ultimate form of matter, just as there is one ultimate form of energy.

"Technical Management of the X-ray" was presented by Dr. Geo. E. Houck, who dilated upon the mistakes liable to be made and how to avoid them. He exhibited a number of skiagraphic plates and prints indicating various points raised in the paper. In his opinion the best apparatus to be used was a proper induction coil and a good mechanical interrupter. He objected to tubes being described as "hard" or "soft," and thought each tube should be described by indicating the length of spark it would pass. As patients become a source of radiation after a while, too long an exposure should not be given; the plate should be intensified in order to get the proper contrast. The points to be accentuated were, first, fix the apparatus; second, adjust the tube for the effect desired; third, fix the distance of the tube from the part to be examined; fourth, give the proper exposure; fifth, develop the plate yourself, and sixth, expect plenty of failures, but keep trying.

"Diagnosis of Fractures by the X-ray" was presented by Dr. Geo. F. Wilson, who showed a large number of very fine skiagraphs of difficult and complicated fractures. He said that it was almost an essential to develop your own plates and know just what you were doing. Heretofore there has been much faulty diagnosis of fractures and probably many cases of malpractice have had some grounds. With a proper X-ray examination no such complaint should exist. It should be used clinically just as much as a thermometer. Comparisons with normals are essential, for we are dealing not with a picture of a thing, but with a shadow of the thing, and it must be known how the shadow of the normal part looks. Skiagraphs are apt to be deceptive unless the normal is known and the relations of the tube to the part at the time the exposure was made. Skiagraphs taken at right angles are very valuable and often disclose a condition that would not be discovered if but one were taken. Proper skiagraphs have shown that almost any form of comminution may be taken care of if carefully studied by the X-ray before and after operation. The surgeon has certainly not done all for his patient unless a thorough X-ray examination has been made.

Another paper on the same subject was presented by Dr. George E. Houck, who emphasized what had been said and called attention to the value of this examination in children, and to the importance of a careful study of the shadows of normal bones in their development. In many cases of fracture or injury to the joints of children, the diagnosis had been improperly made; with the X-ray there was no excuse for this. He thought it time to dismiss the idea that the X-ray was a plaything and to understand

that damage suits may properly result if it has not been used when at hand.

"The X-ray in Cancer Treatment" was presented by Dr. Robert C. Coffey, who made a careful resume of what had been done and published in this direction. Early recognition and immediate operation was unquestionably the only proper treatment for cancer. But when the condition is far advanced and operation is doubtful or impossible, then it is proper to make use of X-ray exposures and to expect good results in some cases. It is also a valuable procedure following an operation. His findings were much like those of Coley's in that an advanced cancerous growth either quickly improves or is rapidly made worse by exposure to X-ray influence. He recounted three cases of cancer in which the patients had been materially benefited or entirely relieved by X-ray exposures alone, or following extensive operation. One case had become more complicated through the rapid increase due to metastasis. One patient had sarcoma of the rectum, seven inches from the anus. It was removed as well as possible and the patient subsequently exposed to X-ray influence; apparently cured. Another patient had malignant disease involving the mesentary and absolutely inoperable. Preparation was made to operate for obstruction which was regarded as inevitable. Patient was nevertheless exposed to X-rays; obstruction relieved and continued exposure seemed to quite relieve condition. He thought that our knowledge at the present time warranted the following statement of the best treatment for cancer: Radical surgery as soon as possible, followed by prolonged exposure to the X-rays.

"X-ray in the Treatment of Skin and Glandular Involvements" was the title of the closing paper of the symposium, and was read by Dr. Luther H. Hamilton. He used the X-rays in the treatment of six patients troubled with acne. The first one was an exceedingly trying case, but after 15 exposures, covering a period of seven weeks, the trouble had entirely gone and had not returned at the end of three months. The other patients also were benefited. In three cases of chronic eczema, one patient was cured, one relapsed and one was improving under treatment. One case of Paget's disease of the nipple was entirely cured after 16 exposures and there was no return at the end of four months. In cervical adenitis the results were very promising, but sufficient time had not elapsed to tell whether a cure has been secured.

Dr. K. A. J. Mackenzie opened the discussion on the papers relating to the X-ray by saying that it was now absurd for anyone to deny the very great value of this aid in surgical diagnosis. Its relation to surgery from a medico-legal point of view must not be overlooked, however, and it is of vastly greater importance than is generally thought. Full records of the relations of tube to part examined and to plate, must always be kept, for without these the actual findings cannot be properly interpreted and the result may be very misleading; to the lay mind a skiagraph may look very shocking, yet the condition may be one known to the surgeon to be very satisfactory. As yet we knew too little as to the definite time of exposure and he had hoped for enlightenment from the papers read. He spoke of the danger of increasing the rapid development of some cancers through metastasis, and suggested the advisability of making use of this agent in the treatment of tubercular peritonitis. He recounted the case of a woman who was operated upon for the relief of very marked ascites. There were numerous large nodes all over the omentum and any sort of operative interference was quite out of the question. She was submitted to repeated X-ray exposures, with the result that the reaccumulated fluid was soon absorbed and now, apparently, the nodes have disappeared. The patient seems to have entirely recovered from the previous condition.

Dr. Andrew C. Smith said that he had been somewhat sceptical as to the therapeutic effect of the X-rays, but Dr. Hamilton had converted him; he believed they were a specific for tubercular skin affections, epithelioma, etc. The treatment should be used by competent men only, and all beginning cancers should be operated upon first and exposed to the rays afterward.

Second Day's Sessions.

The session of Wednesday opened with a symposium on "Nervous and Mental Diseases," the first paper being on "The Paranoiac," by Dr. Walter T. Williamson. In an exceedingly able manner the course of the development of paranoia was traced, from the commencement of delusions to the final transformation of personality. In the writer's opinion the paranoiac is born; he is the victim of heredity. The diagnosis may not be made for a long time, nor until the disease has progressed to a point where the victim is dangerous; the prognosis is always bad, for paranoia is incurable.

"The Neurasthenic" was treated of by Dr. J. Allen Gilbert, who said that while the personal equation altered the symptoms more or less, there were certain well-recognized, generally constant expressions of the disease that could be recognized as diagnostic. The causes were heredity, sex excesses, mental overwork, worry or anything which produced more strain on the nervous system than it could take care of. He likened the nervous system to a vessel into which water could flow and from which it might be drawn. If the drafts upon the vessel were in excess of the ability to fill it, it would go dry. So anything that drained the nervous system beyond its ability to recoup, would produce neurasthenia. Many drains were totally unnecessary as, for instance, late hours, social duties, dances, card parties for young girls, etc. The disease always occurs at that time when the patient is working hardest or is calling upon his nervous system for larger drafts than it can supply. Reflexes are not abolished, they can always be found; but on repetition they respond less and less well. All such reflexes and symptoms generally are those indicating a condition of nerves that cannot do what they are called upon to perform. The headache, backache, nervous heart and nervous dyspepsia are typical; in men the low hanging sensitive testicle is generally found. It is to be differentiated from hysteria and paresis.

"The Pervert" was the subject treated of by Dr. James P. Tamiesie, and he spoke of the kinds of perverts that existed and were not generally so commonly recognized as the sex pervert. He mentioned three classes to be added to the list of perverts. The gastronomical, the religious and the social perverts were quite as well defined as is the victim of sex pervertion.

"The Syphilitic" was the title of the next paper, by Dr. William House. He thought syphilis was not the cause of so many diseases as held by many men. He recognized true tabes and the tabes due to this disease. Much of the belief he thought came from the statistics made up from public institution reports. In these institutions records were apt to be imperfectly kept, and many things were assumed or guessed at that were not the facts. He made a very careful review of the clinical history of the disease, and stated that he thought from five to ten per cent of the sufferers from syphilis never entirely regain full and competent mental poise; the shock to most when they learn that they have the disease is very great.

There is no chronic non-fiebrile disease which syphilis cannot and does not, more or less often, simulate.

Recess was taken until the afternoon session, and upon convening Dr. J. T. Lock exhibited a child of two and one-half years of age suffering from hydrocephalous. The only signs of consciousness which it exhibited were to cry when hungry and apparently recognize its mother.

"The Tubercular Relation to Nervous and Mental Diseases" was the theme of Dr. Woods Hutchinson, and he said that but little was known as to this relationship. He thought medicine was now in a reactionary stage and that a general rather than a special cause should always be looked for. When an organ, as the kidney, is at fault, it is simply an indication that something in the general system is at fault and has caused the trouble with the special organ. There are generally definite poisons at work to produce even localized diseases. The diathesis or the general toxic element should always be looked for most carefully. He spoke of tubercular meningitis and thought it more common than generally supposed. He knew of one house with tubercular infection in which four children, one after another, had died at from one to two years of age with tubercular meningitis. He spoke also of tubercular neuritis. Wherever the weak spot is, there the general disease will be manifest. The relation of tuberculosis to the insane was a very important one and could not be entirely explained by the confinement, etc.

"What Can We Do For Them?" was the title of Dr. John S. Klober's closing paper of the symposium. He thought the paranoiac hopeless. The only thing to be done was to watch out for the children of those afflicted and to try and bring them up under the most favorable conditions. The animal development and not the mental should be considered the desideratum. Labor, physical exercise in the open air, and very little call upon the brain was to be recommended for these children. He then said:

"There is coming a time, gentlemen, when the treatment of this class of trouble is going to be the absolute prevention, so far as prevention is practicable by the intervention of the law, to prohibit the marriage of persons who are known to have the hereditary diathesis of these mental degenerates. Instead of the physician being called upon to direct the lives of the unfortunate offspring of such parents, or the neurologist to care for the hopeless victim at the public expense, the ax will be laid to the root of the evil and a law will state that the greatest public good demands that these persons shall not legally inflict future generations with a mind-twisted progeny, just as it now says that the patient suffering from an infectious or contagious disease shall not be a menace to other people, but shall be controlled by proper or, when necessary, enforced quarantine restrictions. I know that this is taking a very much advanced stand, and one that will require a great and well-directed effort to overcome the present conviction that it will be an abridgement of personal liberty that cannot be inforced. But it can be in the same manner that all of the laws for the protection of the public health have been made and inforced, by the presentment of such evidence by persons of recognized authority as to bring to bear upon the great majority of the public, who make the laws, such indisputable proofs of the hereditary tendencies of these psychoses that will place these laws upon the statute books and effect their inforcement.

"Why should the paranoiac with his known heredity be permitted to inflict this world with a mentally unsound progeny, who will, in the course of events, again do the same to the end of the cycle, any more than the person with smallpox, or the child with scarlet fever is allowed the dissemination of their diseases, or the tuberculous patient the ejectment of sputa when and where he pleases.

"The gospel of increase and multiply has been preached from time almost immemorial by preacher, litteratcur and statesman alike, and their theme has been that of quantity, rather than quality. Even our worthy President of the United States in his addresses, if he has been properly quoted, has descanted forcibly upon the sin of what he chooses to term race suicide. The codfish with its million young seems their ideal. The general acceptance of the opinion that large families are a test of advance of evolution seems strange, when the extent and force of the action of the principle of individuation is taken into account. And when it is remembered how prolific are the lower vertebrates when compared with the higher, biology challenges the view that multiple and frequently repeated births are expressions of race advancement. It has been noted that even the ancestors of those predisposed to phthisis have numerous families.

"It is a well known fact that multiple and frequently repeated pregnancies are common among the families of the hereditary lunatics. This is forcibly corroborated by Drs. Kiernan and Harriet Alexander in connection with the hereditary lunatics from Cook County. They found that 90 families of the hereditary insane averaged 11 children each. Of these, four had 13, three had 16, three had 17, four had 18, three 19, five 20, and one had 21 children. Twins triplets and quadruplets were six times as frequent as among normal families. Many others have reported corresponding conditons. Valenta reports the case of an epileptic mother who had 36 children, including six times twins, twice triplets and four times quadruplets. Her daughter, also an epileptic, bore 32 children before she was 40, including quadruplets twice, triplets four times and twins once. Similar, though less striking statistics occur with other classes of degenerates with proportionate frequency, when the sterilizing effect of the diseases to which they are specially liable is taken into account.

"Do not these facts in themselves constitute a sermon, and are they not of sufficient moment to bring us at least to the consideration of making such conditons legally impossible? We have succeeded by statutory measures in stamping out almost entirely many of the contagious diseases that were a menace to the population of the world, and I think it about time that we at least begin the movement toward some practical steps looking to the extinction of these mental diatheses."

Neurasthenia, he thought, could only be properly treated by considering each patient separately; find the cause and then try to remove it, and if this is successful the patient speedly recovers. Ferruginous tonics, arsenic and rest seem to be about the only things otherwise indicated. The degree of rest depends upon the individual patient under treatment. Massage and electricity are also useful, and baths, properly conducted and managed, are desirable. Full selected diet should be given. All intestinal torpidity should be relieved and auto-intoxication guarded against. For this latter he considered beta naphthol in ten grain doses every one to three hours, was about the best remedy. Plenty of water, especially hot, on an empty stomach, was excellent.

Dr. Simeon E. Josephi discussed the matters presented in the symposium. He thought the term "paranoiac" somewhat vague. The term partial insanity he thought improper, for he argued that a person could not be insane on one point and sane on all other topics. In all murder cases where there was any question as to the liability of the criminal, or to the certainty of his being a paranoiac, he

thought the benefit of the doubt should be given to the community, for paranoiacs are too dangerous to be at large. He disagreed with one of the writers and thought that the importance of syphilis as an etiologic factor in nervous and other diseases had not been overestimated. Not a few people suffer from syphilis and do not know it. He cited two instances of patients with whom he had come in contact who had the disease, but did not know it.

A "Kidney Symposium" was the closing feature of the scientific program, and the first paper was read by Dr. Albert E. Mackay on the subject of "Modern Methods of Diagnosing Kidney Disease." He considered the segregation of the urine the most important diagnostic aid, and discussed the relative values of catherterization of the ureters, the cystoscope, the Harris instrument, and the most recent one in which a septum is placed across the bladder in the median line by means of a very skillfully devised instrument, which he demonstrated.

"Dietetic Treatment of Various Forms of Kidney Disease" was presented by Dr. Charles J. Smith. He first analyzed kidney affections into acute and chronic, and the chronic into interstitial and parenchymatous. The treatment varies more or less with the particular form under observation, but the effort is to get the skin and bowels to take up the work that the kidneys should do, but cannot.

"Causation and Pathology of Chronic Bright's" by Dr. Woods Hutchinson, was listened to with interest. He considered albumen in the urine as of but little importance in itself. For all the albumen lost in one day one drink of milk would supply the deficiency. Too much attention has been devoted to the question of dieting so as to reduce the amount of albumen in the urine, and the kidneys have thus been starved. The total solids in the urine, he considered the important question. It is not a disease of the kidney, primarily, but a condition due to the falling upon the kidney of work that should be taken care of elsewhere. He thought that the kidney has a secretory as well as an excretary function, and that some condition of the general system rendered the secretion of the kidney impossible or defective; the Edebohls operation seemed to let this something out into the blood, with a consequent improvement in the condition of the affected organs. There certainly seems to be something that changes albumen into urea under normal conditions, and in conditions of irritation of the kidney this something is reduced or lacking.

"Anuria" was presented by Dr. Park Weed Willis, who said that the term as generally used was a misnomer; anuria is very rare. Partial anuria is the true condition usually spoken of as anuria. He made a careful presentation of the subject from recent literature, drawing largely from a paper by Arthur Dean Bevan (*Annals of Surgery*, May, 1903).

The last paper of the symposium, and of the meeting, was that of Dr. K. A. J. Mackenzie, on the subject of "Indications for Nephrectomy." He said it was not wise to remove a kidney that could secrete even a little. It is most essential to locate the offending kidney and to be sure there is another; he had found the Harris segregator very valuable. He then listed the conditions in which removal of a kidney was justifiable or desirable, recommending at the same time the greatest caution in this connection. In the case of movable kidney he thought many operations for removal should not be performed. Unless the hydronephrosis is extreme, or the ureter becomes closed and cannot be fixed, the kidney should not be removed. A kidney that is the seat of a pus process should not be removed until the very limit of medical treatment has been reached.

Dr. Andrew C. Smith opened the general discussion on the papers of the symposium, and said that he thought it wrong to employ any drug directed to the kidneys. The only drug he ever used was occasionally employed, not for its effect on the kidneys, but for its action upon the heart and general circulation—nitroglycerin. Increased tension, sclerosis and general cardiac disturbance are early indications of interstitial nephritis and nitroglycerin is almost always of value. Where there is cardiac dilation digitalis and strychnia are useful. He thought the old plan of diet had recently been shown to be bad; possibly it was not well to starve the kidneys in order to eliminate albumen from the urine. Intestinal fermentation and auto-intoxication should be very carefully guarded against in any treatment. He thought it impossible to drain a hydronephrotic kidney indefinitely without getting up a pyogenic infection. In the case of a pyonephrotic kidney, unless the diagnosis is made early and before much damage is done, he thought the organ should be removed.

Dr. Henry W. Coe, president of the Washington State Medical Society, said that any treatment was of little avail. These patients go from bad to worse and their fate is known. Why dally with the condition? From his personal experience he knew what it felt like to live along with death staring one in the face, and feeling a little more drop in general condition from day to day. When it is recognized, and you know that the patient cannot recover, why not do the proper thing at once? Why not cut down and split the capsule? He had been operated upon himself and he knew what the immediate benefit was, and what the improvement to be expected was. Of course the operation is a recent one and we cannot be absolutely sure; there have been raised questions of accuracy in diagnosis; but the result is, he thinks, certainly one of improvement, if not indeed cure. The operation is not easy, but it should be done. The whole of the capsule should be removed. If the kidney is nicked no harm is done. The object is to strip the kidney and get firm adhesion between that organ and the quadratus; the patient should be kept quiet for several weeks.

The following officers were elected for next year:

President, Dr. Walter T. Williamson, of Salem.

First vice-president, Dr. Tape, Hot Lake.

Second vice-president, Dr. Mae Cardwell, Portland.

Secretary, Dr. L. H. Hamilton, Portland.

Treasurer, Dr. Jessie McGavin, Portland.

Councillors, Dr. White, of Gervais; Dr. Josephi, of Portland; Dr. C. J. Smith, Pendleton, delegate to A. M. A.; Dr. K. A. J. Mackenzie, Portland, alternate.

Among the questions taken up was that introduced by Dr. Caspar W. Sharples, of Seattle, who desired to know what the sense of the society was regarding the inviting of the American Medical Association to Portland in 1905. He stated that if Portland thought it could not very well accommodate the 4000 or 5000 delegates that would attend the meeting, Seattle would like to propose that the society meet there, and would take measures to bring it to the Coast. The question was referred to a committee to report later.

Dr. Williamson then introduced the following resolution, which was unanimously carried:

Whereas, The present Oregon system of trial of a civil or criminal cause, with insanity as the defense, is imperfect, inasmuch as the medical experts are subjected to the bias and prejudice of being called by either the prosecution or defense, and

Whereas, The present system receives such expert testimony only during the controversy and struggle incident to the progress of the trial, and

Whereas, The medical expert should have no interest in the case on either side, financial or otherwise, and

Whereas, Better and More advanced systems of procedure are followed in some other countries, to the benefit of right and justice; therefore, be it

Resolved, That it is the sense of the Oregon State Medical Society that the present system should be changed by remedial enactment of the Legislature, empowering

the judge, at his discretion, or making it his duty, to call in expert testimony, and

Resolved, That the members of this society hereby pledge themselves to give earnest support to such legislation, especially asking such physicians as are members of the Legislature to work for such a measure, and

Resolved, That the secretary of the society submit our invitation to the State Bar Association to co-operate with us in our efforts to procure the enactment of some such legislation.

A second resolution, looking to the better care of the feeble minded by the establishment of a separate institution for their benefit, was adopted as follows:

Whereas, Statistics establish that about one person in every 600 is feeble minded, carrying with it the features of dependence and burden, and

Whereas, The present system of placing such persons among the insane for care and treatment is obstructive, unkind and unjust, and

Whereas, The estimated population of Oregon is 450,000, which would contribute about 700 to be classed as feeble minded, demanding humane care and education, therefore be it

Resolved, That the Oregon State Medical Association favor the establishment of a separate institution for the caring of the feeble minded in this state, as profitable, legitimate and humane, and recommend such action at the next session of the Legislature. Respectfully submitted,

W. T. WILLIAMSON,
WOODS HUTCHINSON,
HARRY LANE,
J. ALLEN GILBERT,
C. J. SMITH.

SAN JOAQUIN VALLEY MEDICAL SOCIETY.

SIXTEENTH SESSION.

Reported by PHILIP MILLS JONES, M. D.

The 16th semi-annual session of the Valley Society was called to order by the President, Dr. J. D. Davidson, at the Hughes Hotel, on the morning of the 13th of October. The attendance was very satisfactory, though the members present thought the society should have a larger number of the physicans in the eight counties which it embraces, upon roster. This matter was touched upon by the president in his address, and he also emphasized the absence of squabbles, fights, etc., in the society; harmony had characterized its meetings from the very first. The roll call was dispensed with, and after reading the minutes of the last session, the following committees were appointed: Censors, Drs. R. E. L. Morton, W. E. Lilley and W. W. Cross; Finance, Drs. H. W. Taggart, P. N. Russel and J. L. McClelland; Ethics, Drs. A. B. Cowan and E. C. Dunn.

Applicatons for membership were received from Drs. E. S. O'Brien, Merced; A. H. Wallace, P. Manson, Fresno; W. Whittington, Dinuba; T. Feemster, Porterville; J. G. Thompson, Oakdale; A. M. Smith, Merced; T. M. Semple, Fresno. These applicatons were referred to the censors, who later reported favorably upon all except Dr. Whittington's name; the others were elected.

A new constitution and by-laws was read and adopted. It is along the lines of the American Medical Association recommendations, admitting to membership all reputable licensed physicians who do not practice sectarian medicine, and who belong to the county society of the county in which they practice, if there be such society. Under "new business," Dr. J. L. Carson, of Bakersfield, brought up the question of fees for life insurance examinations. He called attention to the fact that the society passed a resolution some three years ago, requiring its members to make no examinations for a less fee than $5.00. He said that many of the "old line" companies, like the New York Life and the Equitable, would not pay more than $3; doctors examining for them should charge the full fee and should insist on getting it, or refuse to do the work. Dr. Trowbridge said he had had much experience in this matter, and that while it was true that the resolution did exist, it was not lived up to by some members of the society, and he thought it better to remove the requirement rather than to discipline members for violating it. He moved to rescind the resolution; motion seconded. Dr. Carson said the doctors could do much if they made a strong fight; he thought that personally he had made it cost the New York Life more than the amount it would have spent had it paid him the fee he demanded, $5, and which it would not pay. Dr. Hildreth, Delano, thought that the resolution should stand; doctors were entitled to at least the compensation of $5 for making a thorough examination. Dr. E. C. Dunn said that he insisted on the $5 fee, but he thought it better to rescind the rule than to deal with the members who did not desire to live up to it. The motion to rescind was lost by a vote of 9 to 6. On motion, the president was instructed to appoint a committee of three members to draw up and present to the State Society a resolution setting forth the condition of affairs and asking the aid and co-operation of the State Society in securing proper action by these insurance companies. Motion was carried unanimously and the chair appointed Drs. G. A. Hare, A. B. Cowan and J. R. Walker. Dr. Hildreth asked the committee to see that the matter was duly presented and considered by the State Society, for that organization could do very much toward securing proper action by the companies referred to. The society then adjourned to meet at 1:30 P. M.

The first paper of the session was read by Dr. R. E. Bering, on "Hyoscin Hydrobromate as a Specific for the Cure of Morphin and Whiskey Habits." He said that he had been using the drug for some two years and the results were astonishing; he thought the time would come when there would be State institutions for the treatment of the victims of these habits by this method. No matter how much a victim to the habit the individual, he could be absolutely cured by this treatment, properly administered, in a short time. He accentuated the necessity for its proper administration, however, for unless it was done properly it would result in no permanent result. The patient must first be thoroughly cleaned out, removing all possibility of autoinfection; the room in which he is to be confined during treatment should have no superfluous furniture, and should be dark; it is well to have the windows barred, and a trained nurse, competent to handle the patient must be in constant attendance. The physican administering the treatment must be near at hand and study the patient from hour to hour, not trusting to any nurse to administer the drug. He begins with 1-100th of a grain every hour hypodermatically and continues until the full physiologic effect of the drug has been reached. This is indicated by the flushed face, wild delirium, excessive dilation of the pupils, etc. When this stage has been reached the drug should be given in just sufficient amount to keep up the physiologic effect for 48 hours in the case of alcoholics and 72 hours with morphin victims. The amount will vary with the individual, but will not be more than 1-100th grain and probably will be less; some patients were kept under on 1-300th grain every two or three hours. The first treatment will probably scare the physician, for the delirium induced is very great. When the patient comes out from the influence of the drug he is offered whiskey, and if this is accepted by the patient the hyoscin is again administered for another 24 hours. Sweating is profuse and patients should have plenty of water. They come out from the drug in about six hours and then the general condition needs

attention. The stomach has been affected by the past habit, and careful light feeding should be the rule for some time. He gave a summary of six patients who had been treated after this manner, in all of which cases the recovery was prompt and the cure decided.

In discussing the paper, Dr. W. T. Barr said that he had not tried the treatment on morphin users, but he had with alcoholics, and so far as he knew they were all cured. In his opinion, however, the treatment was too severe; the patients came out from the treatment with shattered nervous system and did not seem to regain perfect health; this he thought might be due either to the habit or to the treatment. The after-treatment was essential and the patients must be built up with tonics, etc. The treatment is very vexatious for the general practitioner, for it practically takes up all his time; he must be in constant attendance on the patient. The delirium is far worse than that of delirium tremens, and generally scares the physician pretty thoroughly. It certainly will straighten out any case of alcoholism in 48 hours, however. Dr. W. N. Sherman asked for further information as to the subsequent history of the patients treated by Dr. Bering. Dr. Bering replied that they were all chronic drunks of the worst sort when treated, but that none of them had relapsed; some were treated so long as two years ago. He said he could guarantee to cure, no matter how bad the habit might be. Some of his patients went into saloons on business, but had no desire to touch alcohol after the treatment. Dr. Hildreth asked whether there was known to be any constitutional effect tending to shorten life. He thought any treatment so very harsh would be apt to have a very great constitutional effect. Cutting off the alcohol might have an injurious effect. He cited two men, one 59 and the other 64 years of age who voluntarily stopped drinking; they both died within 18 months. Dr. Cross asked what were the counterindications to the treatment. What patients would be regarded as unfavorable ones for this treatment? It is new to the public and they would not be apt to forgive any untoward result from a thing so new. Would a bad condition of the kidneys, for instance, counterindicate the treatment? Dr. Bering replied that he had recently read of a patient with Bright's having successfully taken the treatment and he thought if properly given there was no danger and no contraindication. But the treatment must be adapted to the particular patient. The discussion became more or less general, Drs. Cowan, Cross, Bering and Barr participating, and referring to one or two cases of complications where the result had not been satisfactory or the patient had died within a few months afterward. Dr. Hildreth suggested that when these patients come to the doctor they are in bad condition and it is not easy to tell what their normal condition would be. Dr. Pedlar said that he had observed two patients who had been given the treatment and that they were both nervous wrecks afterward; both relapsed and said they did not experience any lessening in their desire for alcohol. This might have been due to improper administration of the treatment, however. One patient referred to in the discussion as having died after the treatment died of pulmonary edema; he had had asthma for years. Dr. Barr mentioned two or three successful cases and said that the success of the treatment depended upon the manner of its administration; the doctor must be constantly at hand. In closing Dr. Bering said that it was most important for the physician to thoroughly understand the physiologc action of the drug and to use it so as to keep the patient under its full influence for the time required. If it is administered properly and intelligently he thought it would always be found absolutely successful.

Dr. J. L. McClelland, of Los Banos, read a "Report of a Diphtheria Epidemic" which occurred in a district where no diphtheria had appeared for many years, and where the doctors had consequently had no experience with antitoxin. The first patient seen was a hunter, and the diagnosis was not made at once. Later a membrane appeared and the diagnosis was made. It was a severe attack and a consultant was called in. The attendant urged the use of antitoxin, but the consultant objected; said he had heard very bad reports of the use of the serum, and thought it too dangerous. Sores on the hands and body were affected and membrane appeared upon them; the patient died. His dog seemed to have developed the disease and was killed. He considered this man's death was due to the influence of one of the rank medical journals published in the Middle West, in which various articles attacking the use of antitoxin had appeared, and had been read by the consultant. The second case occurred two or three days later, in a boy of 4; it was a severe attack of the laryngeal variety. The attendant physician wanted to use antitoxin, but the mother objected; she had heard the other doctor speak unfavorably of it. Iron and carbolic acid were used, but the patient died at the end of 34 hours. Another child in the same family developed the disease and antitoxin was used; it recovered so quickly that the attendant rather doubted the diagnosis. The first patient seen by Dr. McClelland had a temperature of 104 degrees, and was given 1000 units; the following day another similar dose was given; the patient later recovered. The next case was severe; no membrane appeared for several days and the diagnosis was doubted; the patient grew worse and 1000 units were injected into the gluteal muscles. The child was so sick they prepared for intubation, the following day was better; 1000 units more were given and the patient slowly recovered. He mentioned other similar cases, but all recovered under antitoxin. In all there were 80 cases, of which number 5 patients died. Two of these deaths were patients who had not received any antitoxin, and one was a little child who died at the time the antitoxin was injected into the arm; the disease was far advanced and death may have been due to too sudden entrance of the serum into the circulation. He referred to the difficulty of the country practitioner in making diagnosis; he could not wait for a culture to be made, even if the proper apparatus were at hand. Something must be done at once, and as antitoxin could do no harm it should be used in every suspicious case. He wondered that no harm had been done in using the antitoxin, for no aseptic methods were employed by some doctors. One man would pour out the serum into a spoon, fill his ordinary hypodermic with the serum, inject it, and then refill it and inject the second half. Once the syringe did not work properly so he poured it back into the spoon, fixed the syringe and tried again. He thought 1000 units should be used first, and then if more was needed it could be given.

In discussing the paper Dr. Hayden said that Fresno had gone through the same experience since he came there; it was certainly true that at first there was opposition, but after it had been tried there was none. He thought 1000 units too small a dose. He had given 3000 units to a 3-year-old child; it seemed to be perfectly harmless, and enough to do the work should be given. The main thing was to use it early, and give enough. He considered it of the utmost importance to keep the patient in bed for two or three weeks in severe cases, for otherwise the patient's heart might give out suddenly. We

should anticipate these heart failure cases by using strychnin and by keeping the patients in bed. Dr. Hildreth thought that if larger doses of antitoxin had been used the danger of heart failure would have been greatly reduced. Dr. Trowbridge said he thought the diagnosis of tonsilitis was often made when the case was one of diphtheria. Mild cases he considered rather commoner than generally believed, and the existence of paralysis following what had been considered tonsilitis he regarded as indicating a mistaken diagnosis. He referred to one such case which was followed by what strongly simulated tabes; but on treatment the paralysis disappeared. He considered the dose used by the writer too small; large doses should be used first. Dr. Moor considered early administration of sufficient quantity of serum the all-important thing; enough should be given at once to have a decided effect. No other treatment is necessary. Dr. H. W. Taggart mentioned the occurrence of a case in a family of eight children. The boy had been treated by a Chinese doctor for sore throat, and when seen had a temperature of 104 degrees, and there was membrane in the throat. 2000 units were given at once; six hours later a second 2000 units were given, and in 48 hours the child was well. The rest of the family received prophylactic doses of from 500 to 2000 units each and no other case of diphtheria developed. Dr. Walker spoke of an epidemic of 38 cases of the disease; it was checked by free use of prophylactic injections. One patient of his, a girl of 16, had a severe attack, but recovered; she was ordered to keep to the bed, but insisted in getting up to go to stool. She walked half way across the room and dropped dead from heart failure. Dr. Dunn asked what the diagnostic symptoms were that indicated the presence of diphtheria and the necessity for serum? In the practice of the country physician it is impossible, geuerally, to get cultures made in time to do any good. Should serum be used iu every suspicious casè, or were any geueral diagnostic symptoms recognized. Dr. Bering thought it best to use the serum in any suspicous case; it could do no harm and might save the patient's life. He would use it as one uses iodid of potassium in cases of suspected syphilis where the diagnosis cannot be absolutely made. Dr. Manson thought the disease was first a local affection with a spot located in the throat, and that often local treatment would be advantageous. He referred to the old days when persulphite of iron was used to dissolve the membrane, under the belief that it would prevent the absorbtion of the disease from the membrane. Dr. McClelland spoke of the general symptoms and thought it impossible to make an absolute diagnosis in some cases very early. The antitoxin should be used if the case is suspicious, but a small amount should be first given. There was no necessity of using 2000 units if 500 would suffice. The expense is quite an item and must be considered. He thought it better to consider tonsilitis-diphtheria and use serum, than to call diphtheria tonsilitis and possibly have the patient die. In some cases where a prophylactic dose had been given, he observed that the patient later had a very mild attack of the disease. Dr. Cross considered Dr. Dunn's question as important as that of the size dose to be given. The first point was never to make the mistake of not considering croup diphtheria; the temperature might be low, but the diagnosis should always be suspected. We should take no chances and should give serum at once and in large doses. Where the membrane formed in the trachae or larynx the diagnosis might be hard to make for a couple of days; but the general symptoms should lead one to suspect the trouble pretty early. Membrane on the tonsils, gray or yellowish gray, was diagnostic, and membrane on the uvula he considered absolutely diagnostic. The first cases occurriug in an epidemic are generally not severe and often are not recognized; this may account for the spread of the disease. A large amount of a weak culture or a small amount of a powerful culture would in either case produce profound results. He considered the cause of sudden death from heart failure due to an acute fatty degeneration of the heart muscle. He thought local treatment bad, for it only agitated the patients and did no good. Dr. Hare thought that need not be made; tonsilitis should not be confounded with diphtheria and if the diagnosis could not be made, antitoxin should be used anyhow. In many cases it is impossible to make a certain and early diagnosis without cultures, but in such cases the serum should be given. He reported the observation of 8 cases of the disease which had been contracted from a cat. All had from 1000 to 3000 units and recovered. The benefit of the doubt should always go to the patient's favor and the antitoxin should be used. Dr. Davidson agreed with Drs. Cross and Hare in believing that the serum should be used early and in sufficient quantities. Small doses he considered nearly useless and he referred to the paper of Dr. Burrows printed in the STATE JOURNAL, in which the use of from 7000 to 48000 units was reported. Dr. W. N. Sherman mentioned the change in sentiment on this question, as indicated by the present discussion compared with one on a similar paper to which he referred, some years ago. Dr. McClelland, in closing, said that the thing was to give enough antitoxin; if a small dose was enough, all right; if not, give a larger dose.

The paper by Dr. W. W. Cross on "The Practical Value of the State Medical Law" was the next one. This, together with the discussion on it, will be found in this issue of the JOURNAL, page 363.

Dr. W. E. Lilley read the next paper, entitled "Uric Acid in Its Relations to Bodily Ailments." He thought that much light could be thrown upon many questions by a careful study of the uric acid question in the domestic economy. A certain amount of the acid is eliminated and a large amount may be stored up, being liberated subsequently and when not expected. Thus a patient might be on a uric acid-free diet, and yet have a sudden increase in the uric acid due to liberation of some that had been stored away in the liver. If one could eliminate the uric acid and keep out the uric acid synthins these conditions might be greatly relieved. He cited a case of uric acid headache which had persisted for years, yet which was entirely cured by a properly regulated diet and careful attention to bowels and feeding. After a time all the stored uric acid was eliminated and the headaches entirely ceased. Dr. Dunn, in discussing the paper, said that Dr. Lilley seemed to have covered the ground pretty thoroughly. He thought that a better knowledge of uric acid formation would be of very great aid in the treatment of a large number of ailments. Dr. Lilley said that the main point he wished to bring out was a consideration of this question of storing up uric acid, and its liberation when least expected. It seems to be taken up out of the blood and stored in the liver or spleen.

At the evening session Dr. J. R. Walker read his paper on "The Care of the Eyes During School Life." He made a careful review of the work that had been done on the examination of the eyes of school children, and emphasized the necessity for examinations in every school. The increase of myopia in school children, in this country, had now been clearly demonstrated, and it should receive the careful consideration of every physician. Every child should have its eyes examined on entering school, and should be carefully looked after in this particular; dull or backward pupils should be sent to an

oculist for a thorough examination. The prejudice against glasses seems to be fading and it could be largely combatted by the general practitioner. Dr. Trowbridge, in discussion, said that the subject might be a dry one to the general practitioner, but it was not to the oculist, who observed the rapid increase in eye troubles in school children. The Germans are a myopic race, owing to the many generations of hard study; we are rapidly increasing in the matter of myopia in school children, and it should be guarded against. He warned against sending children to an optician and mentioned the fact that in some states the opticians were compelled to send all patients for whom they could not get 20-20ths, to an oculist for proper examination. The position of the pupil must also be considered and congestion avoided. Many cases of hypermetropia could not be detected unless the children were examined by a specialist, so he thought the work should be done by one properly trained and not left to the teacher. Dr. Hare thought we were rapidly reaching the point where there would have to be a physician inspector for each school, and thus secure properly and carefully looking after the health as well as the eyes of pupils. Children should be well looked after in order to make good healthy men and good citizens. A gross error of refraction might exist for years and handicap a child, when by finding and correcting it the child would more rapidly and completely develop. In closing Dr. Walker said that hypermetropia would be found in most cases if the apparently dull or backward children were watched and carefully examined. The teacher could do much, but a doctor was certainly a better examiner. Dr. Dunn asked if Dr. Walker thought the present curriculum was too hard for the normal eye. Dr. Walker thought that this was often the case.

Dr. Trowbridge exhibited two patients who had subacute glaucoma. In both cases a good free iridectomy.

An invitation was extended for the Society to meet at Tulare at its next meeting. The invitation was accepted.

On motion, it was decided that hereafter one-half of all expenses of any entertainments furnished the Society should be paid from the society treasury.

The following officers were then elected: President, Dr. Moor, of Hanford; 1st Vice-President, Dr. Bering, of Tulare; 2nd Vice-President, Dr. Taggart, of Stockton; 3rd Vice-President, Dr. Philips, of Kingsburg; Treasurer, Dr. J. M. Hayden. On motion the Society then adjourned to meet the second Tuesday in March, 1904, at Tulare.

Following the evening session the members and guests gathered in the dining-room of the Hughes Hotel, where an excellent banquet was served, tendered to the Society by the Fresno County Medical Society. Dr. E. C. Dunn acted as toast master and the evening passed very pleasantly.

OTHER SOCIETY MEETINGS.

Fresno County.

The regular monthly meeting of the Fresno County Medical Society was held on October 6, at the office of Dr. P. N. Russell, the president, Dr. E. J. Couey, in the chair.

On roll call the following members responded to their names: Drs. Aiken, Couey, Hayden, Wallace, Melchonian, Nicholson, Steinwand, J. L. Maupin, Dunn, A. D. Wilson, Morrison, W. F. Maupin, Manson, Gebhart, Pedlar, J. R. Walker, Russell, Hare and Rowell.

After the reading of the minutes the following resolution was introduced and adopted: "Knowing that the indiscriminate and illegal sale of morphine, cocaine and other dangerous substances is notoriously conducted by some of our local druggists, be it, by the Fresno County Medical Society,

"*Resolved*, That we unqualifiedly condemn such indiscriminate and illegal sale of such poisons; and be it further

Resolved, That this Society hereby calls the attention of the Board of Health of Fresno city to this matter, respectfully requesting said board to use its official efforts to curtail or abolish such illegal practises;

Resolved, That a copy of these resolutions be officially transmitted to said Board of Health by the secretary of this society."

It appears that there are one or more drug stores in Fresno that are notorious for their non-observance of the law relating to the sale of these poisons, and it is the endeavor of the society to put a stop to this promiscuous sale of morphine and other drugs to the fiends.

In the matter of James Gerow, an unlicensed practitioner of Laton, the committee of ethics, heretofore instructed to investigate the matter, reported that it was the intention of Dr. Gerow to go before the Board of Examiners in December, and until that time the committee recommended that no action be taken. A motion to this effect carried.

On motion of Dr. G. A. Hare, duly seconded, it was unanimously carried that the STATE JOURNAL be made the official organ of this society.

The paper of the evening was entitled "Gastric Ulcer," and was prepared and presented by Dr. E. C. Dunn. It proved to be a subject of much interest and was generously discussed. The paper was sent to the publication committee of the STATE JOURNAL.

After the payment of dues and adjournment an unusually dainty repast, with refreshments was partaken of, Host Russell proving himself a past master of the art of entertaining his fellow practitioners.

ANGUS B. COWAN, Sec'y.

Humboldt County.

The regular meeting of the Humboldt County Medical Society was held in Eureka Tuesday, October 13, with a good attendance. Regarding the matter of Dr. Nelson of Hydesville, practising without a license, the District Attorney reported that he had communicated with the State Board of Examiners and with Dr. Nelson. The State Board reported that Dr. Nelson would have to make the necessary application for examination at the next meeting of the Board and file his diploma, and must appear for examination at the next meeting. This Dr. Nelson agreed to do.

The fee bill was taken up and part of it was gone over and discussed; the balance was left for another meeting.

The paper of the evening was read by Dr. A. Miller of Ferndale, entitled "A Report of Six Cases of Achlorhydria," which will be published in an early issue of the STATE JOURNAL.

G. N. DRYSDALE, Secretary.

Los Angeles County.

The Los Angeles County Medical Association met at Blanchard Hall on the evening of October 2, there being about 30 members present.

The paper of the evening was a report by Dr. E. R. Smith of Los Angeles, on the following subjects: 1. "A Case of Aneurism of the Aorta, Treated by Wire." 2. "A Case of Infected Wound of the Hand by a Bite from a Child Suffering with Diphtheria. 3. "Case in which a Bullet was Located Near the Spine by the X-Ray."

In the first case about 50 feet of soft iron wire was

ing to order and Dr. King was then elected temporary chairman. Dr. Bert. Ellis was elected secretary.

Dr. Lewis Thorpe, member of the State Board of Examiners, of the Medical Society of the State of California, then read his paper entitled "The State Examination in Medicine." Dr. E. C. Buell, member of the Examining Board, (Homeopathic), opened the discussion. He said, in part, that he "appreciated the courtesy of the invitation to speak before the Los Angeles County Medical Association. Dr. Thorpe's paper was in reality a plea for financial support; for the defense of and the upholding of the medical profession in its administration of the law, as it related to the examination of candidates for admission to practice medicine in California. There are suits pending, one is brought by individuals who wish to have the Board of Examiners ousted, and the law repealed. These men bringing suit wish to have candidates graduating in other states take the examination, but do not think that graduates of California colleges of medicine should be required to pass such an examination. At present the Board of Examiners has no discretionary power; all must take the same examination. It might be well to have the law so that some might not have to pass the examination before being allowed to practice. For instance, men of exceptional gifts, graduates of colleges whose requirements are very high and who have come to California to live and are practicing, might be allowed to continue to practice with only a provisional license, on the understanding that they were to take the examination as soon as possible. At present any one practicing without a license is guilty of a misdemeanor. The Board at present needs money to prosecute illegal practitioners, and I would urge that a fund be raised by the various medical societies, to be used as a defense fund, to uphold the Board of Examiners in their efforts to maintain the integrity of the medical profession."

Dr. Le Moyne Wills read a set of resolutions offered by a committee to the Santa Clara County Medical Society on August 19, 1903, appearing in the CALIFORNIA STATE JOURNAL OF MEDICINE for September, 1903, and said that he felt that this Association should not be behind in expressing its views. He accordingly offered the following set of resolutions:

Whereas, The Los Angeles County Medical Association, in regular session assembled, this 16th day of October, 1903, having heard read the very careful report of the Special Committee of the Santa Clara County Medical Society to that society August 19, 1903, and published in the September number of the CALIFORNIA STATE JOURNAL OF MEDICINE; and having listened to the very able and succinct address on "The State Examination in Medicine," by Dr. L. S. Thorpe, and discussions by our local members of the State Board of Examiners, views with alarm the suit to oust the present State Board of Examiners now pending; therefore be it

Resolved, That the Los Angeles County Medical Association hereby endorses the position and action of the Santa Clara County Medical Society, taken relative to this suit against the State Board of Examiners, and hereby pledges the influence and support of this society, individually and collectively, to the State Board of Examiners; endorses their action and appreciates the good they have done and are doing, and insists that there shall be no tampering with the present medical law of this State; and be it further

Resolved, That this county medical association urges and calls upon the Trustees of the Medical Society of the State of California to use such funds as may be at their disposal, to employ counsel and to do everything they can to sustain and defend the position in which the State Board of Examiners finds itself at the present juncture; and be it further

Resolved, That we respectfully recommend that similar action be taken by each regular county medical society throughout this State and by the Homeopathic and Eclectic county and State societies for the common defense against suits brought by disgruntled diploma-mill proprietors and their rejected output.

Adopted October 16, 1903, by L. A. Co. Med. Association, C. G. STIVERS, M. D., Secretary.

Dr. H. Bert. Ellis, president of the Medical Society of the State of California, then spoke. He said he was in favor of the resolutions offered, and promised to use his best efforts in behalf of the medical defense fund.

Dr. F. C. E. Mattison, one of the Trustees of the State Medical Society, said he was not in a position to say how much money was available for the use of the medical defense fund, but was sure that there would no doubt be a favorable sentiment toward using such funds if necessary for the purpose of defending any suit brought against the Board of Medical Examiners.

The subject was discussed by other members, and at the close of the discussion, Drs. Buell and Thorpe thanked the Association for its expressions of willingness to support the Board of Examiners in its efforts to maintain the dignity and high standing of the medical profession in California.

The doctors of the south want to see the transactions of their medical societies printed in the STATE JOURNAL. I will keep you posted on all matters of interest.

C. G. STIVERS, Sec'y.

The meeting held on the evening of October 16, was a most interesting one. There were two new applications for membership received, Dr. A. T. Newcomb, of Pasadena, and Dr. C. B. Nichols, of Los Angeles. There were five new members elected, viz: Dr. H. H. Nast, Los Angeles; D. Elbert Wing, Los Angeles; Dr. Paul Bresee, Los Angeles; Dr. C. W. Foster, Guanajuato, Gt. Mexico; Dr. Cecelia Reiche, Los Angeles. There was a full attendance from all over Los Angeles County, there being about 50 present.

The program was a paper by Dr. J. H. Cobb, U. S. Marine Hospital Service, his subject being "Method of Spread of Infectious Respiratory Diseases." The paper was handled in a very interesting and original manner, and although I am not able to give it in detail, yet I hope to be able to get the paper for the JOURNAL. The paper was fully discussed by Dr. L. M. Powers, health officer for Los Angeles, and others.

inserted at two seances, which was followed by great improvement in the patient's condition, but the man finally succumbed to exhaustion and hemorrhage. The sac was enormous, holding about 3 pints. The point of interest in the second case was the fact that culture of the pus from the surface of the hand gave a pure Klebs-Loeffler bacillus and the successful treatment of the case, after surgical methods were tried, by the use of 12,000 units of antitoxin. The bullet case was of interest because the X-ray located it on a plate exactly where it was found on operation.

Five applications for membership were received, and Dr. H. Bert. Ellis, chairman of the committee on constitution and by-laws, read his report, the report being the new constitution and by-laws recommended by the committee as having been approved by the American Medical Association. They were thoroughly discussed and adopted by vote.

Dr. W. W. Hitchcock was elected a delegate to the National Auxiliary Congressional Legislative Committee of the A. M. A.

Mendocino County.

In response to an invitation sent out by the Board of Trustees of the State Society, a number of physicians of Mendocino County met Drs. Kenyon, Morton and Jones at Ukiah on the night of the 8th of October, and organized the Mendocino County Medical Society. At the meeting were Drs. E. W. King, J. L. Bond, Ida M. Lathrop, T. P. Hopkins, W. N. Moore and C. A. Poage, and Drs. L. A. Elster, H. Thomson, O. W. Sherwood, A. O. Eckardt and F. C. Piersol wrote that they could not attend, but would like to be enrolled as charter members. Dr. Kenyon, chairman of the Board of Trustees, called the meet-

porary chairman. After considering the matter of organization, it was by vote decided to organize a county society to affiliate with the State Society, and the question of constitution and by-laws was called up. The constitution and by-laws recommended for county societies by the American Medical Association was taken up and carefully read, and then so amended as to conform to the local requirements and the constitution and by-laws of the State Society. It was then adopted. The roster is to be left open to all physicians of the county to become charter members until the next meeting, which will be held on the third Saturday of January, at 8 P. M., at the office of Dr. Lathrop. After this time the initiation fee will be $5.00; the annual dues were fixed at $2.00, and the meetings are to be held quarterly, on the third Saturday of January, April, July and October. The constitution and by-laws having been adopted, the Society proceeded to elect officers to hold office until the January meeting, which is declared the annual meeting for election of officers. Dr. E. W. King was elected president, Dr. W. N. Moore, vice-president, and Dr. C. A. Poage, secretary. On motion, the secretary was instructed to at once apply to the State Society for affiliation. On motion the Society adjourned to meet at the office of Dr. Lathrop, who kindly invited the members to meet with her and after the meeting to partake of her hospitality, at 8 P. M., of the third Saturday in January.

The JOURNAL wishes the newly formed county society every success; may it live for all time; may it thrive until every reputable practitioner in the county is enrolled upon its roster; may it create a spirit of abiding peace and good will; may its meetings be conducive to the betterment of everything professional, scientific and personal in Mendocino county, and may it be a strong member of the State Society forever!

Orange County.

The Orange County Medical Association met in regular session Tuesday evening Oct. 6. Dr. H. W. Hasson read a very interesting paper, subject "Medical and Surgical Hints." He advised against the use of alcohol in shock, which, of course, was criticised by some, and favored by others. I am inclined to think physicians view the subject largely in sympathy with their views on prohibition.

The Society took definite action to secure book cases for our library, which I think will be in place in another month. H. S. GORDON, Sec'y.

Northern California and Southern Oregon Medical Association.

Physicians met at Cedarville, Cal., August 28, and organized this association, with the following officers: Dr. Herbert T. Risdon, Alturas, Cal., president; D. R. E. Lee Steiner, Lakeview, Ore., vice-president; Dr. Hilderbrand, Cedarville, Cal., secretary, and Dr. Alexander Gibson, Alturas, Cal., treasurer.

Sacramento County.

The Sacramento Society for Medical Improvement met in regular session at the office of Dr. Krull on the evening of October 20. The meeting was called to order by the president, Dr. Thomas Ross. The following members answered the roll call: Doctors W. E. Briggs, Cartwright, Hanna, Hart, Hatch, Henderson, James, Krull, McGavren, McKee, Lindsay, Nourse, Parkinson, Ross, G. L. Simmons, Sutliff, Strader, Twitchell, John White, Wright and Jessie Wheeler.

A committee recommended by the Northern District Medical Society to act as a committee of arrangements for the coming session of the Northern District Society was appointed. The committee is composed of Drs. Henderson, S. E. Simmons, McGavren, Parkinson and Ross.

A communication from the secretary of the National Auxiliary and Legislative Committee of the American Medical Association, addressed to Dr. G. L. Simmons, was read, confirming his appointment by the Sacramento Society and detailing the duties and obligations of the office.

Dr. Twitchell reported additional history on a case he had reported about one year ago. The individual was a young man who then had complete hysterical paralysis, but eventually recovered. Lately he received a blow on the hip, which was followed by paralysis of both lower limbs, also of a hysterical character.

Dr. Sutliff reported the case of a man who was found apparently unconscious in a bath tub. Examination revealed normal color, normal pulse and respiration. A hypodermic injection of aromatic spts. of ammonia quickly restored the patient; he vomited a large amount of undigested matter.

Dr. Twitchell, who also saw him, thought the patient was suffering from acquired hysteria. The wife of the patient has been a long sufferer from repeated hysterical attacks, and her husband has presumably unconsciously simulated her condition.

The paper of the evening was read by Dr. Krull, on "Fracture of the Hip." The discussion was opened by Dr. Henderson, and partaken in by Drs. Hatch, Twitchell, G. L. Simmons and Ross.

J. W. JAMES, Secretary.

San Diego County.

At the regular meetings of the San Diego County Medical Society for the months of September and October, Dr. Magee, the secretary, gave a synopsis of the Lane lectures of this year delivered at the Cooper Medical College by Dr. Allis on "Fractures and Dislocations." These reports took the place of the customary papers and discussions.

San Francisco County.

Meeting called to order at 8:30. Dr. Kengla in the chair. Minutes of last meeting read and approved. Propositions for membership: F. Lehnhoff Wyld, J. V. Hughes, F. P. Gray, R. R. Bullock, Edw. L. Perrault, J. F. Presley. Report of Committee on Admissions: Rachael Ash, Kate I. Brady, Wm. H. Heinzman, Laurence R. Draper, A. P. O'Brien, C. A. Bessen, Anson R. Hall, W. A. Meirdierks, O. W. Jones.

Written Communications: (1) "Kidney Tumors of Adrenal Origin," Dr. H. C. Moffitt; (2) "Grawitz' Tumor of Kidney," Dr. E. O. Jellinek; (3) Presentation of a Specimen of Adrenal Tumor, Dr. H. B. Reynolds; (4) "Retro-peritoneal Lipoma," Dr. C. G. Levison.

Discussion:—Papers of Dr. Jellinek and Dr. Moffitt.

Presentation of specimen by Dr. Reynolds saying: "This is a tumor that was diagnosed post mortem as an adrenal tumor. Man, aged 56, Novia Scotia, occupation carpenter. Hereditary and childhood history negative with regard to tumor. He came under the service of Dr. Bazet at the French Hospital in April, complaining of pain in the left side. He had been under Dr. Bazet's treatment for an indefinite malaria lasting over 16 years. Then an acute malaria followed, and since then there has been an indefinite history of malaria. He complained of pain and a tumor on the left side. The tumor was thought to be an enlarged spleen, and the pain slowly diminished. He returned to the hospital on July 14th, two weeks after having had a large timber fall on his shoulder. He was able to work after that and continued for five days. Then

he suffered from dyspnea. He was a large-framed- muscular man. The skin was hot, yellow and markedly anemic; not the simple pallor of anemia, but rather muddy and slightly yellowish. The thorax on the left side showed some roughened breathing. His abdomen was rather large and round. There was some tenderness still remaining over the tumor, but it was indefinite. The tumor, as far as could be made out, was in the left hypochondrium 5cm. below the left border of the ribs. There was no tympany over the tumor. The edge of the spleen could not be felt. Urine normal. Blood examination showed 4,500,000 reds, hemoglobin 65 per cent. The patient was seen by Dr. Kerr and operation decided upon. The right pleural eavity was aspirated and contained thickened blood. This was repeated several times and finally the right thorax was opened and washed out with hot salt solution. Then the fluid did not recur. The patient recovered but continued to become more anemic. The red cells and hemoglobin continued to diminish. The patient died about three weeks ago. At autopsy this tumor was found. As the body was opened the tumor was cut down upon on making an incision parallel to the border of the ribs. The tumor was covered with the omentum gastro hepaticum. On cutting through that the tumor was exposed, showing it to be retroperitoneal. In front was the panereas which came across or directly over it and the spleen which lay on the left side. The tumor was easily movable about a point which represented a superrenal diaphragmatic ligament. The kidney was displaced downward and not involved in the tumor mass. Between the tumor and the kidney there was considera' 'e tissue which has been subjected to examination. The tumor looked like a superrenal tissue. On cutting it contained thick, dark blood."

In discussing Dr. Jellinek's case, Dr. Ophüls said: "The tumor shows the typical lobulated appearance and light color and soft consistency. It has grown from the upper pole of the kidney into the pelvis. It is full of hemorrhagie areas. The tumors develop slowly and may produee metastasis in the veins. The fat is probably a deposit of normal adrenal fat. The microscopic sections show a mesh work of capillaries and in places many large cells are arranged in rows of irregular trabeculae. In fresh sections we find large quantities of glycogen. There are two points that are of interest to the pathologist: 1st, Conheim's theory of hypertrophy of displaced portions; and 2d, non-malignancy of the mestastasis.

Dr. Rosenstirn reported a case of Grawitz tumor in a young man of 18, which he considered as very uncommon, as they generally occur after 40. He objected to Dr. Jellinek's statement that these cases were quoted as carcinoma. The origin of the adrenal tumors is indefinite; being of epithelial origin we have the first conditions for carcinoma. He believed that one should not open the fatty capsule, but extract the tumor entire.

Dr. Ebright reported the results of his microscopic examination of Dr. Reynold's tumor and the metastasis of the spleen, which he said were even more rapidly growing than the tumor.

Dr. Krotoszyner referred to ureteral catheterization of the kidneys and tryoscopy as aids in diagnosis of these tumors. In one of Jellinek's cases Dr. Knotoszyner cryoscopized the urine from the separate kidneys. The blood showed 0.55 and 0.56, 0.58 being normal. On the right side which was affected, 0.4, which was very low, was found. The cryoscopy showed on the affected side 0.25, against 0.28 on the healthy side. He said that a great complaint that is made in the majority of cases is that the diagnosis is made either too late for operation or too late for the strength of the patient, the patient being so emaciated that no operation can be performed. This, he said, can be overcome by the early segregation and collection of urine from both kidneys.

Dr. Tait mentioned the experimental work that had been done on dogs regarding the origin of superrenal tumors. In one case a superrenal grafted into a dog underwent fatty degeneration, the other cystic degeneration, both characteristics of superrenal tumors. He also stated that the presence of glycogen is not significant of adrenal tumors.

Dr. Cooper referred to the circulatory disturbances caused by these tumors in the abdomen. Tumors on the left side are difficult to distinguish from splenic enlargement. The characteristic displacement of the heart in the latter cases might help to clear up the diagnosis. Inflation of the stomach and its relation when displaced by a tumor might help to give some information. He made experiments on rabbits with the urine of both cases and the results, as far as they refer to an expected variation in blood pressure, remain negative.

Dr. Moffitt, in closing the discussion, said: "These tumors occur quite frequently, even in young children, and varicocele is not infrequent. Drainage will not effect a cure. In regard to inflation of the stomach, I regard that point well taken. Adhesions produced by a tumor in the abdomen may cause displacement of the organs. The lateral veins may rise from the tumor almost anywhere in the abdomen. The flow of blood is oftentimes, in these cases, upward, so that a slight tumor of the adrenal would hardly give rise to veins enough to help us in actual clinical work."

Dr. Jellinek: "We never know when the Grawitz begins to grow, and these tumors may be carried on to autopsy. Grawitz tumors are not very well known, and microscopic examination would reveal their character. In regard to operation, drainage is dangerous on account of hemorrhage.

Dr. Ophüls: "With regard to Dr. Rosenstirn's remarks, these tumors are certainly malignant when they form metastases. Nevertheless on microscopic examination of these latter only little evidence of malignaney is found. Regarding Dr. Tait's remarks concerning the percentage of glycogen, it is well known that all malignant and benign growths contain it, but the proportion of it in adrenal growths is very large.

The Committee on Nominations appointed last month submitted the following nominations: President, J. Rosenstirn; 1st vice-president, E. M. Bixby; 2nd vice-president, H. B. Reynolds; secretary, W. F. Barbat; assistant secretary, H. E. Alderson; treasurer, F. R. Dray; librarian, W. I. Terry. Trustees: H. Gibbons, Jr., W. W. Kerr, L. L. Dorr. Committee on Admissions: S. J. Hunkin, W. B. F. Wakefield, A. W. Morton, J. W. Shields, A. H. Taylor. Committee on Ethics: P. K. Brown, E. Rixford, H. D'Arcy Power, D. A. Stapler, B. D. Cohn. Committee on Finance: E. L. Wemple, E. B. McKee, M. Krotoszyner. Committee on Library: W. I. Terry, C. M. Cooper, C. Quinan. Executive Committee: L. W. Allen, G. E. Ebright, H. Brunn. Committee on Public Health: H. A. L. Ryfkogel, W. A. Martin, E. S. Merritt, J. M. Williamson. Delegates: F. B. Carpenter, A. B. Grosse, W. F. Southard, G. B. Somers, J. A. Black, L. A. Kengla, C. G. Levison, E. G. Frisbie. Alternate Delegates: F. G. Burrows, K. Pischel, J. M. Moss, M. O. Austin, H. C. Moffitt, Mary Halton, J. G. McChesney, R. L. Rigdon, L. Newmark, B. A. Kugeler, George Goodfellow, M. E. Kibbe, G. M. Barrett, G. L. Eaton, W. R. P. Clark, C. H. Rosenthal

Respectfully submitted: George H. Evans, chairman; A. H. Taylor, H. A. L. Ryfkogel, J. Henry Barbat.

Meeting adjourned 10:40 p. m.

W. F. BARBAT, Secretary.

Shasta County.

On Sunday, October 11, at 8 P. M., at Hotel Lorenz parlor, Redding, a permanent organization of the Shasta County Medical Society was effected.

Dr. O. J. Lawry, Redding, was elected president; Dr. R. F. Wallace, Redding, secretary; Dr. Charles W. Harper, Redding, treasurer; board of trustees, Dr. B. E. Stevenson, Redding, Dr. C. W. Bryant, Redding, and Dr. L. J. Tabler, Anderson.

The roster as at present composed consists of Dr. O. J. Lawry, Dr. Charles W. Harper, Dr. C. W. Bryant, Dr. J. M. Read, Dr. B. E. Stevenson, Dr. J. T. Rhom, Dr. R. F. Wallace, Redding; Dr. L. J. Tabler, Anderson; Dr. A. B. Gilliland, Cottonwood; Dr. M. D. Pratt, Fall River Mills; Dr. E. H. Pitts, Corning, Tehama Co.; Dr. David B. Fields, Dr. Edward Taylor, Weaverville, Trinity Co.

The society will meet quarterly, on the third Saturday of October, January, April and July, at 8 P. M. Roster to remain open until after the meeting in January.

The objects of our Society are the advancement and cultivation of medical science; promotion of the interests of the medical profession; affiliation with the medical society of the state of California, and eligibility to membership in the American Medical Association.

The meeting was enthusiastic and interesting. Dr. A. W. Morton, of San Francisco, one of the Trustees of the State Medical Society, was present and assisted in the organization.

R. F. WALLACE, M. D., Sec'y.

Sonoma County.

The Trustees having previously sent out notices to all the physicians of Sonoma county to attend a meeting for the purpose of organizing a Sonoma County Medical Society, at Santa Rosa on the 21st of October, Drs. Kenyon, Morton and Jones, of the Board of Trustees, met with the physicians of that county and aided them in the organization of their county society. There were present Drs. Stuart, Yates, Shearer, Herrick, Fay, McLeod, Ivancovitch, Meneray, Mallory, Jesse, McMullin, Bonner and Crump, and Drs. Grant and J. E. Maddux had sent word that they could not be present, but wished to heartily endorse the organization. The meeting was called to order by Dr. Kenyon, chairman of the Trustees, who explained the general principles underlying the scheme of organization of the whole profession and the meaning of the reorganization of the profession in this State. Dr. Yates was elected temporary chairman and Dr. Shearer temporary secretary. Dr. Jones presented the constitution and by-laws recommended for county societies, which he read and explained in detail, suggesting that a motion to organize and adopt the constitution and by-laws would be in order. Dr. Jesse moved that the physicians present representing Sonoma county proceed to organize the Sonoma County Medical Society and adopt the constitution and by-laws read. This was unanimously carried, and the details of time for meetings, etc., were then determined. The society is to meet on the second Thursday of each month, the place to be determined by resolution from month to month. The roster is, by resolution, left open until the December meeting for all physicians of the county who desire to do so to become charter members without the payment of an initiation fee. The following officers were elected to act until the December meeting, which is to be the annual meeting, and at which time officers for the ensuing year are to be elected: President, Dr. M. M. Shearer; Vice-President, Dr. Jas. W. Jesse; Secretary, Dr. G. W. Mallory; Treasurer, Dr. A. McG. Stuart. By resolution it was decided to hold the next meeting at Santa Rosa, and a committee consisting of Drs. Mallory and Meneray was appointed to secure some convenient place; the secretary was instructed to send postal card notices to all members and physicians in the county, notifying them of the place selected for the meeting. On motion of Dr. Jesse, the committee on program, consisting of the president, vice-president and secretary, was requested to prepare a scientific program for the next meeting. On motion, the secretary was instructed to write to the secretary of the State Society conveying the information that the Sonoma County Medical Society had been organized and had passed a resolution asking for affiliation with the State Society, and to transmit a copy of the constitution and by-laws adopted, together with a list of officers and members. On motion, the society then adjourned to meet the second Thursday in November.

(The Board of Trustees wishes to extend its congratulations to the newly formed society, and to wish it every possible success and a long and prosperous career. It has started well; may it live well and thrive well; may it very soon have upon its roster the name of every reputable practitioner in the county, and may its influence for the good of the profession and for the welfare of the people of Sonoma county, and for the upbuilding of the whole profession be more and more strongly felt as it grows and prospers.)

Clatsop County, Oregon.

The meetings of this county medical society are held on the first Thursday of each month. At an adjourned meeting held on the 22d of October, the society took up consideration of the case of C. C. Rosenburg, an illegal practitioner.

Dr. Alfred Kinney of our society is in New York, doing special work.

C. A. CORDINER, Secretary.

PERSONAL MENTION.

Dr. J. N. Crump has removed from Pasadena to Santa Rosa.

Dr. Smith McMullin has succeeded to the practice of Dr. C. E. Reed at Petaluma.

Dr. Benjamin A. Plant, physician at the State Penitentiary, Folsom, has resigned.

Dr. Calvin W. Knowles has returned to San Francisco from his summer residence in San Rafael.

Dr. John L. Kirkpatrick of Los Angeles and Miss Maude Smith of the same city, were married on September 30.

Dr. James P. Dunn, Oakland, has been appointed chief surgeon of the Southern Pacific Railway in Alameda County.

Dr. Charles E. Turner, Vallejo, has been elected secretary of the local board of health, vice Dr. Walter D. Anderson, deceased.

Drs. Edward Henderson, Isaac N. Hughey and Thomas J. Wilson have been appointed members of the Pomona Board of Health.

Dr. August Greth (Med. Dept. U. C. '94) has become a rival of Santos Dumont by constructing an airship that keeps aloft for some time.

Dr. O. W. Steinwand has been elected secretary of the Board of Health of Selma, which carries with it the position of health officer.

Dr. Joseph W. Henry, for many years resident physician St. Mary's Hospital, and Miss Louise English, were married at St. Mary's Cathedral on Wednesday morning, October 7.

Mail intended for the officers or inmates of the Alameda County Infirmary should be addressed in the future to San Leandro R. F. D., instead of Haywards R. F. D. No. 2, as heretofore.

Dr. William G. Murphy, lately interne at St. Mary's Hospital, made a round trip as ship's surgeon on the Coptic and has returned to resume practice, having opened an office at Third and Harrison streets, San Francisco.

Recent removals of San Francisco physicians:—H. A. Andrews to 3402 Twenty-fourth Street; L. M. F. Wanzer to 1220 Geary; A. F. Werner to 1797 McAllister; A. P. Woodward to 212 Haight; W. P. Willard to 1207 Sutter; A. A. D'Ancona to 1022 Sutter; B. F. Fleming to 2103 Pine; Francis Williams to 1392 Haight; Walter B. Coffey (residence) 1502 McAllister; R. L. Porter to 813 Sutter; R. C. Meyers to Russ House; Max Rothschild to 1312 Van Ness; J. W. Key to Fillmore and McAllister; H. Brunn to 1312 Van Ness; C. Phipps to 1496 Fulton; C. N. Ellinwood to Pacific and Devisadero.

Dr. F. M. Jeffries recently reported a rather unusual and interesting fact to the Clinical Society of the New York Polyclinic. A canary bird developed a growth over one eye; it was removed and on section found to be sarcoma. Subsequently recurrence was noted and the bird was exposed to the action of the X-rays for from two to ten minutes daily. The treatment lasted about five months and thus far the growth, which disappeared under this treatment, has not recurred.

PUBLICATIONS.

The Annals of Surgery for August, in addition to several other and very excellent articles, contains a most valuable contribution to the anatomy of the head. "The Anatomy of the Inferior Ethmoidal Turbinate Bone with Particular Reference to Cell Formation; Surgical Importance of Such Ethmoid Cells," by Dr. Howard A. Lathrop, of Boston, is the title of the paper in question. It is amply illustrated with excellent half-tones, and the illustrations are such as to elucidate the text.

Trade "Literature."—An excellent sample of the sort of advertising circular sent out in hundreds of thousands every week to physicians of the United States, has been received. The article advertised is of no particular importance except as an example. The circular first gives the chemical name of the drug (one of the excessively numerous German immigrants, not recognized in Germany, but manufactured for American consumption) and follows it with a statement of the many truly wonderful actions of this particular chemical in a number of affections. It then states the solubility, etc., and follows this with a number of very fine "ready-made" prescriptions, indicated in the conditions noted. The circular closes with the statement that "literature" and samples will be sent free on application, following which is a list of the "literature." The fact mentioned by a correspondent in this issue of the JOURNAL, that it is very easy to obtain all sorts of endorsements for such trash from sundry German "professors" and others, is suggestively indicated by a careful perusal of this list of available "literature." There are twenty-one pieces of it which any physician may have sent to him, if he so desires, and of the twenty-one but one is indicated as having been published in an American journal. The author has a decidedly German name, and the journal publishing it is one of the small and insignificant ones that live and thrive only on the paid articles published and the write-ups, or "reading notices," which it prints. In all probability it is either reprinted from some foreign publication or has been bought by the manufacturers from some German "professor" and published at advertising rates.

Decapsulation of the Kidney.—Drs. Tyson and Frazier report an operation of decapsulation of the kidney (Edebohls' operation) in the *Univ. Penna. Bulletin* for September. The patient was a child of 9, suffering from chronic parenchymatous nephritis; the urine, before operation, was 21 ounces for the 24 hours, one-half, by volume, being albumen. All medical treatment unavailing; ascites persistent and recurring; patient considered hopeless and referred to surgical ward. Patient so weak that it was thought impossible to operate on both kidneys, so one was first operated upon. The second 24 hours after the decapsulation the urine rose to 42 ounces; the third to 73, and the fourth to 102 ounces. It then dropped back to an average of 60 ounces daily. Two months later the other kidney was similarly operated upon. The urine remains at about 60 ounces and the albumen contained is about 50 per cent by volume. The report refers to the work upon dogs done by Dr. Harold A. Johnson, of San Francisco, and closes with the significant sentence: "On the other hand, there can be no doubt that the patient's life has been saved, and apart from the urinary evidences, she is seemingly in perfect health."

A Real Question of Ethics—The *Illinois Medical Journal*, the publication of the Illinois State Medical Society, publishes the report of a committee of the Illinois Pharmaceutical Association which deals with the relations of pharmacist to physician, and says: "it is of particular interest to our members." It *should* be of particular interest to every physician in every State and Territory of this country. The report is here printed almost entire:

A short time ago some 50 druggists of Hyde Park gave a banquet to which one hundred doctors were invited; the object was to establish more cordial relations. The subjects under discussion were mainly such as had been presented at a meeting of pharmacists at Springfield some two years previously, and were discussed with much interest. The subjects are here briefly outlined, the train of thought in each instance being simply started:

Self Dispensing; Advantantages and Disadvantages—Saving of time; economy to the patient. Making the case fit the remedy and not the remedy fit the case. Narrowing of the number of remedies at command. Substitution of the remedy at hand for some other which better judgment would dictate, etc.

Tablet Triturate Evil—All the above evils, plus uncertainty of medication, etc.

Prescribing Proprietary Preparations — Lack of knowledge as to constituents. Popularizing (advertising to the public) to the palpable disadvantage of the physician. Placing heavy financial burden on both pharmacist and patient. (Notably true in such instances as phenacetin, wool fat, the hexamethylene tetramins, etc.).

Prescribing National Formulary Preparations—Something the druggist can make and the physician can know all about; in other words, generally and universally standard preparations. A prominent druggist had on exhibition a number of preparations of this sort, furnishing a striking illustration of their superiority over proprietary preparations, both from a commercial and an ethical point of view.

Phenacetin vs. Acetanilid—Educate the physician to the fact that they are almost identical, with the advantage, medicinally, in favor of acetanilid—let him know that you oppose phenacetin because it is a monopoly and costs twenty times what it should.

Anti-Kamnia vs. Acetanilid Compound—Comment is superfluous.

Counter Prescribing—Its Advantages—If any, to the druggist; its injustice to the physician; its injustice to the patient.

Refilling Prescriptions and giving Copies—Have an understanding with your physician that his wishes when expressed will be regarded.

The foregoing subjects cover practically the entire range of common ground between the physician and the druggist and afford a prolific and profitable field for exploration and coöperation along the lines followed by the Hyde Park druggists. While it should be our aim to discourage so far as possible the prescribing of proprietary preparations, yet so long as doctors prescribe them, let us fill such prescriptions with the genuine article.

Whose fault is it that the secret proprietary preparation thrives, increases and multiplies?

Nurses' Guide to Surgical Bandaging and Dressings, by Wm. Johnson Smith, F. R. C. S., issued by the J. B. Lippincott Company, Philadelphia. Price 75 cents.

This little volume is well gotten up and is of a nice size for the purpose intended—a volume of suggestion and instruction that may be carried in the pocket of the student or nurse while on duty. The preface seems to tell the truth regarding the volume; a characteristic and peculiar rarity: "In writing

this small work the author has endeavored to provide a ready and complete pocket reference book for junior students and nurses in surgical work. The scientific principles upon which the modern treatment of wounds is based, are fully explained, so that the instructions in dressings and bandaging may be intelligently followed. In order to make these explanations as clear as possible, the little book has been profusely illustrated." The illustrations are really descriptive.—P. M. J.

The American Journal of Orthopedic Surgery, to be published by the American Orthopedic Association, has issued its first number. The Journal is to be a quarterly, and will contain the papers presented at the meeting of the Association and other papers on Orthopedic Surgery by members and non-members. A strong feature is to be a complete resume of orthopedic literature, so that each year's volume shall contain the whole of the year's literature in full or in abstract.

The Journal is to be published in Boston, and is under the charge of an Editorial Committee consisting of Robert W. Lovitt, of Boston; B. E. McKenzie, of Toronto, and Harry M. Sherman, of San Francisco.

The present number contains articles by L. A. Weigel, the president at the time of the meeting, on "The Family Physician, the Specialist and the Patient." V. P. Gibney, "The Correction of Deformity at the Hip, the Result of Disease: A study of the Best Methods and Best Positions"; E. H. Bradford, "Subtrochantiric Osteotomy in Adults, in Adolescents and in Young Children;" R. Tunstall Taylor, "The Mechanical vs. Operative Treatment of Rachitic Deformities of the Lower Extremities, Presenting a New Osteoclast"; Wallace Blanchard, "The Surgical Pathology of Genu Varum and Genu Valgum;" R. W. Lovett, "The Occurrence of Painful Affections of the Feet Among Trained Nurses"; W. Barton Hopkins, "A Further Consideration of a Modified Form of Osteotomy Combined with Osteoclasis, Osteotomoclasis"; Joel E. Goldthwait, "A Consideration of the 'Round Shoulder' or 'Stoop-shoulder' Deformity in Children, with Especial Reference to the Proper Adjustment of the Clothing in Preventing and Treating Such Conditions"; W. R. Townsend, "The Abuse of Flatfoot Supports," and Royal Whitman, "The Importance of Supplementing Tendon Transplantation in the Treatment of Paralytic Talipes by other Procedures Designed to Assure Stability."

In this number are twenty-two abstracts of orthopedic papers. In its make-up the Journal shows excellent taste and good mechanical work.

The Alumni Bulletin of the University of California Medical Department begins its second year with a very creditable number. Judging of its usefulness by its material, it is evident that the "Bulletin" is accomplishing much. The number is full of reports of addresses at the meetings of the Alumni Association and of communications from members, all concerning the interest the Association should have and must have in the Medical Department and its welfare and growth. Not a few of the expressions are critical, and that is healthy, for it, too, shows interest. The scientific papers are few and brief, but the "Bulletin's" first object is to bring the individual alumni in touch with each other through the medium of its publication, and when the Association has become stronger, as it must with the continuation of its present course, we shall expect to see the scientific work of its members reported in its pages.

The *Boston Medical and Surgical Journal,* in its issues for September 17 and 24, and October 1, publishes "The Ill Health of Francis Parkman," by Dr. Geo. M. Gould. This essay is a further addition to the studies which Dr. Gould has been making for some time past, one volume of these Biographic Clinics having already been published and reviewed in these pages. Whether or not we agree with Dr. Gould in believing that eye-strain has such an important place in the formation or malformation of character, and indeed, physical development, we must concede that he has shown a masterful study of his subject, a delightful erudition and a keen reasoning faculty that cannot but gain at once our admiration. In these days few pieces of work are so well or so carefully done as they should be, and it is an added joy to see such clean-cut work come from such a busy workshop. There seems to be little doubt that Dr. Gould has demonstrated his point to at least a considerable extent, and that he has shown to be true, within reasonable margin for question, the fact that eye-strain does materially affect a man's working faculties and his output. Also that eye-strain has existed and may exist for years, if not for a generation, without being located as the cause of trouble and properly attended to, will have to be conceded to his logic. Dr. Gould is an extremist, but then, are not extremists sometimes in the right and conservatives in the wrong? It is to be hoped that the essay last published will be issued in pamphlet form so that a more careful study may be made with the whole of the material he has presented.

The October issue of the *International Journal of Surgery* is one of very great interest to those who practice or may be pursuing the study of radio-therapeutics. The number contains papers, profusely illustrated, by leading electrotherapists, which very fully cover the field of this comparatively new medical science. Among the titles are "Treatment of Cancer," "Cure of Lupus Erythematosus by Actinic Light," "Therapeutic Value of the X-Ray," How to Secure the Best Skiagrams," "New Treatment of Cicatrices," etc.

Reclamation of Alkali Land at Fresno, California, by Milton Whitney, Chief of the Bureau of Soils, Department of Agriculture.

Proceedings of the Good Roads Convention, held at St. Louis, Mo., April 27th to 29th, 1903. Department of Agriculture.

Proceedings of the Fifth and Sixth Annual Meetings of the Pharmaceutical Association of the State University of Iowa, held at Iowa City, April 3rd, 1901, and April 1st, 1902.

History of Maritime Quarantine in Louisiana Against Yellow Fever. By Dr. Quitman Kohnke.

DEATHS.

Dr. J. G. Neal died at Santa Rosa on October 11, of septicemia, which followed an operation on an abcess of some years existence. Dr. Neal was a native of Kentucky and had practiced his profession in Sonoma county for six years.

Dr. George W. Carpenter died October 3, at his residence in San Francisco, 1422 Post street, in the 80th year of his age. He was born in Indiana and graduated from Medical Department University of Michigan in 1853.

Dr. L. C. Winsor, who removed from San Jose to Livermore a few months ago, died on October 22d at his home, of consumption. Some years ago Dr. Winsor was connected with the county hospital at Denver, Colo. He was 41 years of age.

UNAUTHORIZED USE OF REPRINTS.

New York, August 18, 1903.

To the Editor:—My attention has been called to a reprint of my article on "Anesthol" (which appeared in the *Journal* February 28 and March 7, 1903), made and circulated by Messrs. Lehn & Fink, a wholesale drug firm of New York. These reprints were made entirely without my knowledge. I promptly wrote to Messrs. Lehn & Fink, asking for an explanation. The answer I received from them was most unsatisfactory, carefully avoiding the point at issue: "Lack of my (the author's) consent for making the reprints," and not even offering an apology for their conduct.

I can but protest against the method adopted by this firm, viz., using a scientific article for commercial purposes without securing the writer's consent prior to their doing so. I need not assure you that had they asked me beforehand I would have refused their proposition most emphatically. Is there no way of protecting a professional man against such abuses?

WILLY MEYER.

Note—Everything printed in the *Journal of the American Medical Association* is copyrighted, and no one has a right to reprint any of its contents without permission, consequently Lehn & Fink are liable to prosecution for violating the copyright laws. It is to prevent just such occurrences as this that the *Journal* goes to the expense of copyrighting all of its contents, and such a violation of law and the rights and privileges of others, we are happy to say, seldom occurs.—*Journal A. M. A.*

(Will the *Journal A. M. A.* be good enough to advise us whether Lehn & Fink *have been* prosecuted for their infraction of the law?—Ed.)

NEW PHYSIOLOGICAL LABORATORY OF THE UNIVERSITY.

On August 20th, the new laboratory was dedicated at Berkeley. The dedicatory address was delivered by Professor Wilhelm Ostwald of Leipzig, whose subject was "The Relation of Biology to the Neighboring Sciences." Professor Jacques Loeb spoke on "The Limitations of Biological Research."

The laboratory was built through the generosity of Mr. Rudolph Spreckels of San Francisco and was equipped by Mr. Spreckels and Dr. Herzstein. The laboratory consists of a central building and two wings. The left wing is devoted exclusively to the use of students. A large lecture-room and two well-lighted laboratories afford ample accommodations. The right wing is occupied by the aquarium, engine room, thermostat room, and a number of small rooms for research work. The central building is devoted entirely to the use of instructors and investigators. Besides the private rooms, a large number of which are located on each floor, there are several which are devoted to more general ends. On the lower floor are a large store room for apparatus, a balance room, a galvanometer room, a microscopical room, and the library of the department. On the second floor are a dark room and the rooms for physics and chemistry.

The staff consists of Professor Loeb and Drs. Fischer, Bancroft, MacCallum, Bullot and Rogers.

CONGRESS OF OPHTHALMOLOGY.

The next International Congress of Ophthalmology will be held at Lucerne, Switzerland, on September 19th, 20th and 21st, 1904. A radical change in medical congresses is to be introduced, and the plan promises to remove the great objection to such meetings—the long, tiresome papers on subjects about which it is to be assumed every person in attendance is well informed. All those intending to present papers at the Congress must send them in to the committee before the 1st of May, 1904. The committee will then go over them, and such as are accepted will be printed. This volume of printed papers will be sent in advance of the meeting to each person who has paid his fee. At the time of the meeting these papers will not be read, but they will be discussed. In this way the matter of the paper is presented to all, they may read it at leisure, and they can come to the Congress fully prepared to intelligently discuss the questions presented by the writer. "We thus hope to hear the opinions of experienced men who have not the time to write and publish their experiences and opinions. The discussions will be printed and will form the second part of the official report which will be sent to each member after the close of the Congress."

"We propose only one official subject to determine which the great authority of a Congress appears to be particularly necessary. Subject: To settle the question of indemnity as regards the value of an eye, lost or injured." Profs. Axenfeld (of Freiburg), Sulzer (of Paris) and Wurdemann (of Milwaukee) are to draw up a report on this subject, which will be the first thing discussed. The correspondent of the Congress for the United States is Dr. Geo. De Schweinitz, 1401 Locust street, Philadelphia, and from him any further information may be secured.

Pure Food Law is Working.—Dr. Wiley, Chief of the Bureau of Chemistry, stated recently that of 205 cargoes of imported food inspected by his bureau since the law authorizing the exclusion of impure foods went into effect on July 1st last, 20 samples, or 10 per cent, has been found to come within the law's inhibition, and had been condemned. Of these 20 samples 5 were Rhine wine containing salicylic acid, 2 white wines containing sulphurous acid, 4 olive oil containing cotton-seed oil and being misbranded, 3 frankfurter sausage containing preservatives injurious to health, 4 canned vegetables covered with lead tops in contact with the food, 1 vinegar which was misbranded and made of distilled alcohol, and 1 of coloring matter for foods, coal-tar dyes being used. Of the remaining 185 cargoes 167 have been released and 18 are still under examination. The owners of some of the condemned cargoes have asked for time to present additional proof of purity, and it has been granted. Professor George F. Colby, of the University of California, has been appointed by the Secretary of Agriculture to make examination of foreign food products received at Pacific Coast ports. The purpose of the appointment is to avoid the expenses of shipping goods across the continent for inspection.

To Properly Educate Children—Ella Wheeler Wilcox advocates the education of children before they are born. The curriculum does not include the higher mathematics, but is nevertheless important and extensive. Expectant mothers, says Mrs. Wilcox, should spend the period of their gestation in art galleries, academies of design, musical emporia and in colleges where hygiene and dietetics are expounded along strictly scientific lines. Above all, expectant mothers should be protected from the usual irritating and antagonizing influences of relatives.—*Col. Med. Journal.*

DEPARTMENT OF MATERIA MEDICA, THERAPEUTICS AND PHARMACY.

SYNONYMS.

"Things which are equal to the same thing are equal to each other."

Few physicians know that many of the "new remedies" marketed under fanciful trade names are identical with remedies having dissimilar names, or are old preparations which have been given fancy names in order to create a false market for the thing in question. For the benefit of physicians and pharmacists the following table has been compiled and will be added to as the requisite information is obtained. The information is secured from chemists and from medical and pharmaceutical journals, and is correct in the main. Should any errors creep in they will be corrected as soon as detected. *Until sufficient evidence to the contrary is forthcoming, it must be assumed that there is no question of substitution involved when the pharmacist supplies a given article under any one of its synonymous names.*

Adeps lane hydrosus.	Anasalpin, Lanolin, Lanum
Bromacetanilid	Antisepsin, Asepsin
Bismuth-iodo-subgallate	Airol, Airogen, Airoform
Dimethyl-ethyl-carbinol chloral	Dormiol, Amylene-chloral
Dithymol Diiodid	Aristol, Annidalin, Di Thymol Iodid, Di Iodo Dithymol, (And several other similar names.)
Hexamethylene - tetramine	Aminoform, Ammonio-formaldehyde, Cystogen, Formin, Saliformin, Urotropin
", anhydromethylen citrate	Helmitol
Orthc-ethoxy-ana-mono-benzoyl-amido-chinolin	*Benzanalgene, *Analgen, *Quinalgen
Paraphenetin carbamid	Dulcin, Sucrol
Phenazon (Br. Pharmacopoeia)	Antipyrin, Analgesin, Methozin, Pyrazin, Pyrazolin, Paradyn, Sedatin
Phenylacetamide	Acetanilid, Antifebrin, (And several hundreds of trade names for headache powders, etc.)
Plant pepsin	Papain, Papoid, Papayotin, Caroid
Salicylic acid ester of quinine	Salochinin, Saloquinin
Salicylate of Salochinin	Rheumatin
Sodium sulpho-caffeate.	Narsol, Symphoral
Thyroid gland, dried lactose trituration	Iodothyrine, Thyroidin
Trioxymethylen	Paraformaldehyde, Paraform, Triformol

*Must be very cautiously used, if at all, for the physiologic action is not fully known, and this chemical is said to have very serious effect upon the heart and nervous system.

Acetyl-salicylic acid=Aspirin.
Aluminum aceto-tartrate=Alsol.
Australian oil Eucalyptus=Flucol.
Bismuth beta-naphtholate=Orphal.
Calcium permanganate=Acerdol.
Chloreton, 1% solution=Aneson.
Creosote carbonat=Creosotal.
Fl. extract Tang-Kui=Eumenol.
Guaiacol carbonate=Duotal.
Magnesium dioxid=Biogen.
Saccharin=Garanotose.
Subgallate of bismuth=Dermatol.
Sodium chlorate=Oxychlorine.
Sodium beta-naphtholate=Microcidin.
Trichloracetic acid, 50% solution=Acetocaustic.

Goods Subject to Test.

To the Editor of the State Journal:—In your recent report of the proceedings of the American Pharmaceutical Association at its Mackinac Island meeting, a slight error occurs in quoting my remarks, which misrepresents the attitude of Messrs. Parke, Davis & Co. toward the products of their competitors. The statement attributed to me is that that house claimed that it was the only one whose goods were absolutely reliable. I could hardly have said so since the manager of the house in question has been very careful in his conversations and correspondence with me relative to the bureau, to disclaim this view. On one occasion, when I intimated that houses took this view, he wrote to me that he deprecated comparisons of the kind, and instructed his representatives to avoid disparaging their competitors and to confine themselves strictly to their own business. It was probably my statement that he admitted that he could not accept the goods of any house on trust as to their quality, nor without subjecting them to rigid tests, that misled you.

H. H. RUSBY, M. D.

New York, October 1, 1903.

Plaster of Paris in Asafoetida.

To the Editor of the State Journal:—The inclosed correspondence, consisting of a letter addressed to me by a widely known house, and my reply to the same, bear directly upon matters that have appeared in your JOURNAL and may be of interest to your readers.

Very truly yours,

C. S. N. HALLBERG, Ph.G., M. D.

Professor Hallberg: Dear Sir—We have recently been informed that you examined a sample of our Powd. Asafoetida and found that it contains 80 per cent of plaster of paris. Will you kindly inform us where you got the sample. If there is any plaster of paris in it it was not put there by us. We buy asafoetida in original cases and if there is any plaster of paris in it it is put there before we get it.

It seems to us that before making such a statement you should have communicated with us on the subject.

Yours truly,

Chicago, Sept. 16, 1903.

Messrs ———:—Your letter anent an alleged statement by me was duly received. With reference to the allegation, I have never examined any powdered asafoetida for

impurities nor have I ever stated publicly or privately that your powdered asafoetida contained any plaster of paris. Anyone who makes such a statement utters an unqualified falsehood. I have taught for 25 years that powdered asafoetida is comparatively inert and that it should not be used. That in order to get it so friable that it may be powdered, the asafoetida is heated to drive off the greater portion of the volatile oil. Since the oil is the chief active principle it follows that the gum-resin, deprived of the oil, is comparatively inert. This statement cannot be successfully contradicted. I have, however, stated that much of the asafoetida on the market contains plaster of paris and in this I am supported by the authorities. I do remember an article published some 8 or 10 years ago, reporting on the presence of plaster of paris in powdered asafoetida, but do not believe any special make or name of manufacturer was given. To the best of my recollection it was a report on drug adulterations, and I have no doubt it is true now as it was then, for if asafoetida, as imported, contains plaster of paris, then the powdered should also sometime contain plaster of paris, if the drug miller does not examine the crude article and demand that he gets what he pays for. What are the requirements of the U. S. P., that 60 per cent should be soluble in alcohol for?

Since in your letter you appear to take me to task "for not communicating with you on the subject before making such a statement," I desire to remind you that this is not customary when reports are made on the purity or quality of substances. This very proposition was before the American Pharmaceutical Association at its last meeting at Mackinac and was ridiculed by nearly every manufacturing pharmacist represented. "No," they said, "we do not want any supervision in our business; we do not need any outside authority, as is the proposed bureau, to meddle with our affairs. We know how to run our business. Besides, our goods are all good, but there are goods on the market which should be exposed. Such goods are offered at prices at which our goods cannot be furnished. It is dishonest competition and should be ruthlessly exposed. A bureau, on the other hand, organized for the examination of medicines and exposure of the guilty parties will have our moral and financial support, etc., etc., etc."

In other words, the objection presented by manufacturers to the bureau plan is, because it proposes to do just what you desire. It is suggested that you carefully study the bureau plan as proposed. The unintentional, accidental or ignorant adulteration, or even substitution of medicines, especially of crude drugs or their preparations derived from crude substances, often of foreign origin, need not be a subject for criminal prosecution. Prevention is better than cure. A systematic plan for supervision, inspection and reliable information will correct abuses and be of far greater service to the manufacturer than legal proceedings with the inevitable persecutional aspect and often injustice. Is it just or honest to jeopardize the reputation of a manufacturer through publicity of some lapsus, often not well authenticated, without affording him an opportunity for its correction?

And above all, let us acknowledge that the scientific work, especially that of chemistry, required in the examination of medicines is not such as can be performed by everybody, and that the results are not by any means always "dead sure." I shall be pleased to learn your views on this important question at your earliest convenience.

Very truly,

C. S. N. HALLBERG, Ph.G., M. D.
Professor of Pharmacy.

NOTICE.

In order that volumes of the STATE JOURNAL may hereafter begin with the January issue, the present volume will include the December number (No. 13). Those who intend to bind their files will therefore wait until they have received the December number. Index to Volume I will be furnished next month.

Coronado Beach.

California Limited

TO CHICAGO
WITHOUT A JAR

The best train for those who need care . . . .

Santa Fe

X=Rays ?

Apparatus

The very best complete outfits for either ALTERNATING or DIRECT CURRENT. Give absolute satisfaction.

Tubes

Even if you have apparatus let me quote prices on my improved ADJUSTABLE-VACUUM TUBES—the best to be bought for any money.

Estimates and Prices Very Gladly Quoted

I also manufacture any style of small incandescent lamps, Crookes' tubes and glass apparatus for scientific purposes.

G. E. Lamont

126 Kearny Street - San Francisco, Calif.

TELEPHONE RED 4143

California State Journal of Medicine.

Published Monthly by the
Medical Society of the State of California

PUBLICATION COMMITTEE

PHILIP MILLS JONES, M. D., Chairman and Editor

GEORGE H. EVANS, M. D. G. F. REINHARDT, M. D.

C. D. McGETTIGAN, M. D. HARRY M. SHERMAN, M. D.

JOHN J. HARRISON - - - - - Business Manager

Members of the Society are requested to promptly notify the publication office of change of address, in order that mailing list may be corrected. Secretaries of County Societies are also requested to notify the "Journal" of deaths, removals, etc., and send in names of new members and their postoffice address.

Communications on subjects of interest to the profession are invited. The "Journal" is not responsible for the views advanced by correspondents. Address letters relating to the "Journal" to the publication office, 31 Post Street, San Francisco.

Subscription price to non-members of California affiliated county medical societies, $3.00 per year, in advance; single copies, 25 cents. Subscriptions may be sent to publication office, 31 Post St., San Francisco, or to the San Francisco News Co., 342 Geary St., or any of its agents.

DECEMBER, 1903.

EDITORIAL NOTES.

NOTICE! REGISTER.

The official Register and Directory of Physicians of California has been published by the State Society. It is sent free to members of component societies *only*. The price to non-members is $2.50, and copies may be had, while the edition lasts, by application to the publication office of the Society, 31 Post Street, San Francisco, California. In distributing the Register to members, the Trustees have decided to send to the secretary of each component society the number of copies required for his society, requesting the secretaries to see that members receive them. If you have not received your copy of the Register by the 15th of December, write to your county society secretary and ask him why. Remember that it will take a little time to get all these books distributed, so wait till the 15th before you make complaint. Please remember that *no* copies will be given free, except to members and exchanges, and that if you lose or destroy your copy you will have to pay $2.50 for another. Owing to the rapid increase in membership of almost all component societies, many names of members who have become such recently are not printed in black face type. These additions are being noted and future editions of the Register will be corrected in this respect. If you are a member of a component society and your name is not printed in black type, please let us know, but do not blame us, for we are not responsible. We hope you will like the Register, and that you will read carefully pages 15, 23 and 25.

SUITS AGAINST THE EXAMINERS.

On November 17th, the Hon. Frank J. Murasky, of the Superior Court, handed down a very important decision in the suits pending before him against the Board of Medical Examiners of this state. These suits involved various phases of the constitutionality of the act regulating the practice of medicine in California, under which act the Board of Examiners derive authority. The suits were brought by Von Tiedeman, Gardina and Herbin, all of whom were practicing illegally; the two last named had been rejected by the Board of Examiners. The decision handed down by Judge Murasky is very emphatic in affirming the absolute constitutionality of those portions of the law in question, and the suits against the Board were simply thrown out. Another suit, that of Gerino, has been taken before the Supreme Court of California on a writ of *habeas corpus,* and as such cases are disposed of as promptly as possible, this suit will probably be decided very shortly, after argument before the Court in bank; December 7th has been set for the hearing. This suit involves the constitutionality of another element of the law, and of course the decision of this Court will be final. The only other suit of importance remaining is that of Hodghead, representing a medical school, in which the constitutional right of the State Medical Societies to appoint or elect members of the Board, as authorized by the State Legislature when it enacted the law, is questioned. The contention is one that has been raised and decided elsewhere, and probably the constitutionality of the law in this, as in all the other points, will be affirmed. It begins to look as though all these legal difficulties will be cleared away before the first of the year, and that 1904 will commence with a well-cleared-up and defined law.

RATS.

In the November issue, the JOURNAL published an article by Dr. Currie on Rats and their relation to the spread of contagious disease. The JOURNAL is not aware of any similar article on this most important question, in a medical periodical, and therefore calls special attention to Dr. Currie's very valuable contribution to the subject. The public health authorities in charge of the work of cleaning up Chinatown are doing all that they can to get rid of the rats, but with comparatively little result. The rats seem to be, if anything, increasing in numbers, and every month specimens are found from which the bacillus pestis is isolated. During the month of October there were five deaths from plague; in November there were several more. A gentleman, who is in a position to form a close estimate, has advised us that, in his opinion, had

nothing been done toward the cleaning up of Chinatown, there would have been at least one hundred deaths from plague in the month of October, and many more in November. It is evident from Dr. Currie's paper that strong measures should be adopted looking toward the reduction in the rat supply of San Francisco. In the direction of cleaning up, disinfecting, improving sanitary conditions, etc., the authorities are doing splendid work and are to be highly commended. They are also doing what they can to stop the increase of rats, but their resources are very limited.

BOUNTY ON RATS.

It will be seen from a careful reading of Dr. Currie's paper, that the most promising method of getting rid of rats is the payment of a bounty under proper restrictions. Obviously, if the bounty is a permanent thing, certain persons would very soon undertake the breeding of rats for the bounty. The period of gestation of the rat is forty days. Now suppose the bounty is offered for say forty or fifty days, and then discontinued for two months. It would probably be a week before anyone undertook the breeding of rats; forty days would elapse before they littered, and probably two weeks before they were of a proper size for offering for the bounty. But before they would thus be ready for the "market", the bounty would be withdrawn. It would hardly pay the breeder to feed his rats for two months in order to thus eventually get the small amount of bounty, and they would either be killed or turned loose. The plan need not, if adopted, necessitate the expenditure of a vast amount of money. If say ten cents bounty is offered for the first period of fifty days, and five or six cents for subsequent periods, after a lapse of suspended-bounty for two months between bounty-paying periods, probably a goodly reduction in the over-abundant rat supply would be effected; an object greatly to be desired, in view of the continuance of infected rats.

TABLE OF SYNONYMS.

The JOURNAL would bespeak your careful attention to the Table of Synonyms, page 416, which it publishes with additions from month to month. The compilation of this table has required very hard and careful work, covering many weeks time, for the information there given is not easy, in most cases, to secure. Especially is this true in relation to the synthetics of German parentage. The various dye houses that have in the last few years undertaken the extensive manufacture and exploitation of remedies or materia medica products, have developed sundry curious business details that are as a rule unknown to the physician. For instance, one manufacturer will put out a newly discovered and generally patented preparation having certain definite properties. Another concern will see that the first preparation or chemical is selling well, and it will then put out a similar preparation, adding, however, a few atoms of something, just enough not to infringe the patent rights of its competing dye house, nor to materially effect the action of the chemical. The result is that both can claim distinction in the matter of formula and therapeutic effect, while the fact remains that they are, to all intents, identical so far as any therapeutic value or action is concerned. The JOURNAL will be very glad to receive any suggestions in regard to this department, or any additions to the table of synonyms.

DR. GOULD CRITICIZED.

The *Boston Medical and Surgical Journal* published an excellent article by Dr. Geo. M. Gould, on the "Ill Health of Francis Parkman," in which Dr. Gould demonstrated, to the satisfaction of any ordinary individual, the fact that Parkman's ill health was almost undoubtedly due to uncorrected eyestrain. The *Boston Journal* thought Dr. Gould somewhat of a "crank" on this subject of eyestrain, and editorially told him so, in the most polite of Bostonese. Dr. Gould, who is well and thoroughly conversant with Bostonese and sees quickly what its English equivalent is, did not like to be called a crank, and so "came back" at the *Boston M. and S. J.* But there remained somewhat more of Boston diction, and the journal in question again commented editorially on Dr. Gould's letter. (There seems to be lacking a sense of humor, somewhere, in the vicinity of Boston). "We must, therefore, reiterate our opinion that Dr. Gould is an extremist in his advocacy of a theory which *unquestionably stands on a basis of scientific fact*". (Italics ours). Dr. Gould ought certainly to be satisfied with that; in the course of time probably Boston will advocate a theory that has a "basis of scientific fact." Perhaps the thing that rankles is the possibility that the population of Boston may not have been quite accurately refracted, and that a change of glasses may be necessary!

THE TOY PISTOL.

The temptation, ably resisted, was strong upon us to write "the Fool Killer", instead of the Toy Pistol. Since the publication in the *Journal A. M. A.*, of a long and masterly summary of the deaths from tetanus due to the 4th-of-July-toy-pistol accidents, the medical press of the country has had a spasm. Editorial after editorial has been written, and resolutions have been passed; we publish elsewhere in this number of the JOURNAL (at special request), a sample set of resolutions.

They are most excellent. There is undoubtedly a great loss of life from this cause. But are not the ways of Providence sometimes called divine? Is not the elimination of the "4th of July idiot" providential? Ought we to be so temeritous as to try to alter the ways of Divine Providence? And even if it were possible to do away with the toy pistol, would not satanic ingenuity invent some other appliance for the immediate necessity of the fool killer? We long since developed sufficient Christian resignation to look forward with sorrowful regret to the indefinite continuance of the nerve-racking license of the 4th-of-July idiot. When the Toy Pistol article was published some glimmering hope was awakened; statistics seemed to show the activity of the fool-killer. But no; he must be squelched; we must still endure.

A TITLE OF HONOR.

The title "doctor" was originally used to signify teacher in general, but in about the 12th century it became a title of honor for the learned, irrespective of teaching. In the 15th century a difference was observed between the professions of medicine and law, and theology and philosophy, the title "doctor" being bestowed upon the two first and "master" upon the others. In modern times "master" has practically disappeared. The title "doctor" when given an M. D., Phar.D., or D. D. S., is, as a rule, respected by most people; but, unfortunately, in this day of easily acquired titles, there is danger of the ancient and cherished title of doctor losing much of its distinction. It may be a debatable question as to whether there are too many doctors of medicine, but there is no denying the fact that there are too many doctors of everything else. In the plenitude of these the graduate in medicine is liable to become a "doc", the title worthily bestowed on many whose right to any title whatsoever is largely a matter of assumption. There is no more reason why a physician should be addressed as "doc" than that a master should be dubbed "mas", or a professor "prof". A physician who is habitually addressed as "doc" lacks one of two qualities—dignity or self-respect

---

EDDYITE THIRST.

The corporation known as the "Eddyite Book Concern", or, with fine disregard of truth, the "Church of Christ, Scientist"(?), alias the Rev. Mrs. Dr. Mary Baker Glover-Patterson-Eddy, alias "Mother Mary", is not fettered and trammeled with any particular regard for the fitness of things. Naturally, the alleged intellects of those who can say that they believe such stuff as that "food neither strengthens nor weakens the body" could not be expected to have any particular reasoning quality. The inconsistency of several thousands of such idiots journeying to Boston to *see* "Mother Mary"—when they know from her own book (which has no substantial existence except the three-fifty it costs) that she herself cannot have any material existence, and that they themselves are only figments of the imagination, and consequently could as well *think* themselves in Boston as actually go there—is only to be expected. It is also not surprising that they should fail to appreciate the insult paid the prophetess when they were so inconsiderate and "unscientific" as to develop a thirst. How can a thought be thirsty and need the application of ice-water? But then—the word has been said; there needs must be always a certain number of fools; one is "born every minute".

SCHOOL CHILDREN'S EYES.

The JOURNAL publishes this month an exceedingly interesting document. It is a circular or leaflet of instruction to school teachers concerning the importance of, and the method to be used in, examining the eyesight of school children. This leaflet has been prepared by the Superintendent of Schools, of Los Angeles, corrected and approved by the President of the Board of Education of that city, who, by the way, is the President of our State Society. To the best of our knowledge and belief, this is the first document of its class prepared by a school board in conjunction with a competent specialist for the specific purpose of being used officially in schools and studied by school teachers. It should receive the careful attention of every physician, and particularly of those who are interested in this question of the examination of school children's eyes. Certainly no more important question in school hygiene or in the physical and mental development of school children, can be urged. Ventilation, sufficient space, illumination, etc., and all questions of general sanitation are now matters of routine consideration by the architect and the school board. But the eyes of the pupil—upon which depend, one may say, the whole future life of the individual—must be considered by the specialist, or first by the teacher under instructions from the specialist.

THE NEW CONSTITUTION AND BY-LAWS.

On page 417 will be found the first installment of the proposed new constitution and by-laws, recommended by the special committee of five on that subject, appointed under a resolution passed by the House of Delegates at the last meeting of the State Society. The committee waited several months for one of its members,

who has been in Europe, but could not wait any longer, as it desired to have the proposed organic law of the Society published in the JOURNAL in ample time for sufficient consideration by all members. The editor has been requested by the committee to editorially discuss some of the more important questions involved, and to make such explanation as may be necessary to set the matter plainly before the members of the Society. As the whole scheme of reorganization along the broad lines advocated by the American Medical Association is involved, you are most earnestly requested to give this matter your very careful reading and digestion. The committee believes that, in many ways, the old constitution and by-laws is a superior document to that recommended by the A. M. A., but it contains certain basic differences which are entirely at issue with the general scheme of organization, and hence must be radically altered. The committee has therefore arranged the document herewith presented, which is made up of such portions of the old constitution and by-laws as could be retained, together with those parts of the document recommended by the A. M. A., as were essential. A great deal of mere phrase, of the "Sunday-school-book" sort, contained in the A. M. A. document has been eliminated. Queries concerning points that are not understood will be cheerfully answered in the JOURNAL.

There are two fundamental questions involved. The first is that which makes the county medical society the unit, the whole structure of the State Societies and the American Medical Association being formed of these county society units, and no others. That does away with all classes of members except those who are members of county societies. No members at large nor permanent members can retain their membership after one year from the adoption of this new Constitution and By-Laws. They must join a county society that is a component part of the State Society in order to continue as members of the State Society or the American Medical Association. The second major question is the omission of the word "regular" and the substitution for it of the phrase: "Every legally registered physician of good moral and professional standing and who does not practice nor claim to practice sectarian medicine, shall be eligible for membership." This places the matter entirely in the hands of the county societies. It is their duty and privilege to determine whether or not a given physician is or is not claiming to practice sectarian medicine—any 'pathy. If he is not, and he is in all respects a good and satisfactory practitioner of medicine, then he may be elected to membership, if the members of the society choose to elect him. The whole question is in their hands. There is not and there cannot be any coercion. No society can be forced to elect any person to membership within it unless two-thirds of its own members so declare. Other points of importance in regard to the changes introduced will be discussed in subsequent issues of the JOURNAL.

HOMEOPATHIC EXAMINATIONS.

To the Editor of the State Journal:—In reply to my inquiry as to the teaching of pathology in one of the homeopathic schools, I received the enclosed letter. As you will note, the questions asked are far harder and more searching than those required by the Board of Examiners.

Very truly yours,
A MEMBER OF THE BOARD,

July 9, 1902.

DEAR DOCTOR:—I inclose the last examination in special pathology at Hahnemann Medical College for one semester's work (4 months) junior and senior classes:

1. Describe the pathologic lesions of pernicious anemia.
2. Describe myelogenous leukemia. (a) Differentiate it from Hodgkin's disease.
3. What is general atheroma? How does it affect the heart? (a) How does atheroma of the coronary arteries affect the myocardium?
4. Describe endarteritis obliterans.
5. What is the function of bone marrow? (a) Give the varieties and under what conditions it exists normally and pathologically.
6. What is a sequestrum and how is it formed? (a) What is an involucrum and how is it formed?
7. Give the pathology of osteomalacia.
8. Give the macroscopical and microscopical appearance of round ulcer of the stomach. (a) Give the etiology.
9. What is Meckel's diverticulum? Where found? To what pathological lesions may it give rise?
10. Give three forms of tuberculosis found in the liver. (a) Describe one.
11. Describe chronic diffuse emphysema of the lung.
12. What is the sequence of a nonseptic infarction of the spleen.

The work in general pathology is covered in the sophomore year, hence this examination does not include any questions in that.

The Brain of Professor Laborde—Professor Papillault has published preliminary notes on the brain of the late Professor Laborde, the eminent French physiologist and anthropologist. The brain-weight was low, 1234 gms., but whether this was due to atrophy from old age (seventy-three years) or disease is not stated. Dr. Laborde's notable powers of speech led Papillault to examine the subfrontal gyres of the two sides with especial care, and he found that the area in question was demonstrably larger and more differentiated on the left side (where the motor speech-centers lie in right-handed persons) than on the right. The same feature characterized the brain of Gambetta. Unfortunately, Papillault makes no mention of the degree of development of the left insula as compared with the right, for it is this region which is most concerned with the association of the re ceptive and emissary centers of the cortex and so constitutes the true psychic speech-center. Papillault adds that, in general, the convolutions show an average degree of complexity.—E. A. Spitzka in *Science.*

DECAPSULATION OF THE KIDNEY FOR CHRONIC BRIGHT'S DISEASE.*

By GEORGE GOODFELLOW, M. D., and G. L. EATON, M. D.

THE rapid introduction of alleged new remedial measures, medical and surgical, during the past few decades, with resulting claims for their efficiency is remarkable and startling—so startling in fact, that one naturally is led to inquire into their utility. Such inquiry usually leads one to "bow the chin of doubt upon the collar of meditation," and to agree with the Philosopher of Greece, who said the only happy moments of life are those spent in the oblivion of slumber.

The descent and development of disease is a vast problem yet unsolved; our sensuous or empirical knowledge thereof has yet to be colligated by some Spencer or Darwin of the medical profession. The fundamental idea which must necessarily underlie all theories of disease is that of a gradual evolution of all diseases, even the most complex, in connection with the general evolutionary processes. Experience and philosophy do not stand in opposition one to the other; they supplement each other. The philosopher who lacks a foundation of sensuous experience—empirical knowledge—usually arrives at false conclusions in general speculations. On the other hand, the pure empiricist who fails to comprehend the philosophical bearing of his sensuous experience, who fails to strive after general knowledge, can promote science in a slight degree only, and the principal value of its hard-won knowledge of details lies in the general rules to be deduced by more comprehensive minds.

My purpose in this foreword is not to descant upon philosophy, but to call attention to the fact that there is unity in this universe of ours, and that we cannot make separate entities of diseases for purposes of treatment. Each must be looked upon as part of a general whole, the variations of which may for investigation be temporarily labeled. The rapid reversion to therapeutical methods that have been derided for many, many years as irrational, unscientific and brutal, particularly in glandular therapy, is noteworthy. Likewise, many surgical procedures can claim parentage from the time that the Shawm and Sackbut were used near the Willows of Babylon, and the morning song of Memnon arose to the sun.

The foregoing is apropos of an operation for the relief of a complex disease that has been written about much of late, and more recently discussed with a mild degree of acrimony, at a meeting of the County Medical Society of San Francisco, the so-called Edebohls operation for "Decapsulation of the kidney for Chronic Bright's Disease."

My doubts as to the partial benefits, at least, of the operation were somewhat dissipated through one of our most skillful surgeons, Dr. G. W. Shiels, who brought to the notice of the San Francisco County Medical Society Edebohls' paper, describing the results of his efforts in that line, wherein was adduced the idea that the relief experienced was due to establishment of new circulation between the kidney and the surrounding structures. This view was traversed by Dr. H. A. Johnson, who adduced a number of laboratory experiments upon dogs that demonstrated that no such new circulation was established. However this may be, the clinical fact remains that relief from the operation is indubitable, and more or less permanent.

For my own part, looking upon Bright's disease as merely the expression of a general trouble, the name is a misnomer; I cannot yet accede to the proposition that the operation is a permanent curative measure, even if new circulation is, or is not, established.

At the Sixty-ninth Annual Meeting of the British Medical Association, held on July 30, 1901, a paper on "Renal Tension, and Its Treatment by Surgical Means" was read by Reginald Harrison.

Mr. Harrison draws attention in his article to the relief of tension by incision of the kidney in certain pathological conditions thereof. The cue that Mr. Harrison took for such procedure, was given by Von Graefe's operation for the relief of glaucoma, that resulted in the saving of a large number of eyes, which previous to this discovery would undoubtedly have been lost, and converted an incurable disease into a curable one, at the same time demonstrating if not the true nature of the disorder, a method of cure. Hence, it was suggested by Mr. Harrison, that the term "Renal Glaucoma" was not an inappropriate one.

Mr. Harrison applied this procedure, in 1878, to a youth 18 years of age, suffering from scarlatinal nephritis. The capsule was incised, and there was a full discharge of blood and urine from the wound, which continued for several days. The wound was plugged with lint, and in the course of ten days or so healed soundly. After the incision was made the excretion of urine became far more abundant, and the albumin gradually and completely disappeared. Following this experience five other patients were operated on by him, one in '87, another in '93, another in '97, another in '98 and another in '99, all for the relief of kidney tension, either from an injury, acute nephritis, or suspected calculi.

W. D. Spanton, in 1900, cited two patients on whom he operated for extravasation and inflammation by incising the capsule; both recovered.

Decapsulation of the kidney for chronic Bright's disease is elaborately discussed for the first time by G. M. Edebohls in the *Medical Record,* December 21, 1901, and subsequently in the

* Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

British Medical Journal, November 8, 1902. Prior to both of these dates, however, the same author had published in the *Medical News,* April 22, 1899, "The Relief of Chronic Nephritis by Nephropexy." The favorable results obtained suggested to the author's mind the total decapsulation of the kidney for chronic Bright's disease, and to him, I believe, must be given the credit of priority. On December 3, 1901, the first decapsulation of both kidneys was performed on a woman 43 years of age, with a family history of Bright's disease. He tabulates "18 cases of women whose ages vary between 19 and 45, averaging 31½ years" upon whom he operated. Cases of chronic Bright's disease only are included in the list. He says:

> Of the 18 patients, 5 had right chronic interstitial nephritis; 4 had left chronic interstitial nephritis; 4 had right and left chronic interstitial nephritis; 2 had right and left chronic parenchymatous nephritis; and 3 had right and left chronic diffused nephritis. In 14 of the 18 patients both of the kidneys were operated upon; in 12 instances at one sitting, and twice at two sittings. In 4 patients, operation was performed on one kidney only, in every instance the right. Out of the 4 patients whose right kidney alone was operated upon, 2 have recovered complete and lasting health. Embodying these conclusions with the statements contained in Table 1, we find that the left kidney alone was affected by chronic Bright's disease in 4 cases; the right alone in 4 cases, and both kidneys in nine cases; while in one case the unilateral or bilateral nature of the disease remained undetermined. The determination of the pathological lesions was made by Professor H. T. Brooks.

In all of the cases relief has followed the operation; the time, however, for most of them being too short to give conclusive information as to the absolutely curative effects of the procedure. The preceding would seem to show that only 50 per cent. of all cases of Bright's disease are bilateral, and suggests the use of the cystoscope, with urethral catheterization, or Harris' segregator, to determine whether one or both kidneys are involved, thereby enabling the operator to decapsulate the kidney at fault, minimizing the shock, and perturbation of function that might be expected to follow traumatism in a healthy excretory organ of such importance. And I would advise clinical examinations of the urine secreted by each kidney in every case of suspected nephritis where operative procedure is contemplated.

Dr. Cabot in the *Boston Medical and Surgical Journal,* October 23, 1902, also reports two operations; both patients temporarily improved. Dr. Elliott at the same time reports two operations, one for Bright's disease, the other for scarlatinal nephritis; both patients improved.

My operation was made as follows: Incisions on both sides along the erector spinæ muscles from the twelfth rib to the crest of the ilium. Owing to the water-logged condition of the tissues the kidneys were at considerable depth, but no great difficulty was experienced in raising them to the surface. They presented a typical appearance of chronic parenchymatous nephritis, both upper poles filled with broad hemorrhagic infarctions, with a cyst in the lower pole of the left one. The capsules were split from pole to pole, and stripped completely from the body of the kidneys, and the kidneys incised to a slight depth. Here I diverged from Edebohls' technique, for instead of removing the capsule I attached each side of the capsule to the muscles with a single suture, making an incomplete nephropexy, only partially uniting the wounds, filling the remainder of the cavities with gauze. The time of operation was not long, and the patient left the table in good shape. The subsequent history of the patient will be detailed by Dr. Eaton, who kept accurate reports to the day that the patient insisted on going to his home some two hundred miles distant, since which time I have heard nothing from him. The operation was made under spinal cocainization, about one-fifth of a grain of hydrochlorate of cocaine being used. I was assisted by Drs. Eaton, McConnell, O'Neill and Emmal. The discharge from the wounds was profuse for several days, and continued in diminishing quantity until the 13th day, when practically it ceased. His improvement for some days was astounding—anasarca and ascites diminished, urine increased, appetite returned ravenously, he calling for food constantly.

One point worthy of mention was that the odor of the secretion from the back was strongly ammoniacal, while the urinary secretion was normal. I do not think that closure of the wounds even partially is advisable in cases where such extensive anarsarca and ascites exist, as in the case of the patient upon whom I operated. Drainage is enormous, necessitating constant care to prevent refrigeration of the patient; furthermore, the flow appears to be just what is needed, being continuous and gentle.

On the afternoon of March 29th, the patient was sitting up in bed smoking a cigar, and informed me that he was going home on the following day. My protest was unhoneyed, but availed nothing. Consulting his wife, I urged her to interpose, but she said he was "too wilful." Dr. Eaton added his protest to mine, but with equal effect. They left next day for a point somewhere south of Fresno, and in spite of requests to keep us informed of his condition, we have heard nothing.

On leaving, his condition, objectively, was good —slight edema in the upper part of the right thigh; probably a small amount of fluid in the abdominal cavity; the abdomen was flaccid, but I presume that all fluid had never disappeared. The albumin had increased, but that was the only disagreeable or unfavorable sign. The wounds, except superficially where the gauze had been

packed, were closed, drainage, as I have said, having ceased on the 13th day.

I regret that no further information can be given.

In my opinion the operation is a perfectly justifiable one, particularly with patients *in extremis*, and the result of other operations in nephritic conditions due to divers causes, certainly make it a safe procedure. Spinal anesthesia will prove of inestimable value where a general anesthetic cannot be given.

Dr. George L. Eaton, San Francisco.—On March 11, 1903, I was called to see Mr. H., age 41, born in New York, married, temperate habits; moderate use of alcohol and tobacco; residence, Fresno County, California. No history of venereal disease. Father died of "inflammation of the bowels" at the age of 33. Mother's cause of death not known. Two sisters living and in good health. Had measles in childhood. Has had several attacks of malaria, one lasting from 17 to 18 months; last one about six years ago. Had "La Grippe" about six years ago. Otherwise has enjoyed good health, with the exception of now and then urethral irritation, accompanied by frequent urination, and a "stiffness of his joints," as he described it, "like a foundered horse." To all appearances he was in a dying condition, having passed no urine whatever for twenty-four hours. Pulse 150, respiration 35, temperature 97 F. per rectum, with signs of uremic infection. Extensive anarsarca from head to feet, with ascites. Abdominal distension was so great as to interfere with respiration, and the patient was required to remain in a semi-recumbent position. Questioning him carefully as to the onset of the disease, he said that 12 weeks before he had noticed a swelling of the feet and legs. Prior to that date he had never had any apparent kidney affection.

By catheterization four ounces of urine was obtained, the examination of the same being embodied in the urinary analysis. In consultation with Dr. G. E. Goodfellow on the above date, we performed paracentesis abdominalis, removing approximately two and one-half gallons of ascitic fluid, which apparently gave the patient considerable relief, and made him comfortable for the night. Operation of decapsulation of the kidney was advised and accepted, the same being performed at 12 m. on March 12th. The steps of the operation have been described by Dr. Goodfellow.

I will not take time by going into minute details of the daily urinalysis, but will confine myself to the most important features of the case, namely, the quantity of urine passed each 24 hours and the increase and decrease of albumin, urea and casts. Microscopic examination demonstrated always an abundance of epithelia from the kidneys with amorphous detritus. From March 12th to March 15th each passage of urine was examined, the highest and lowest percentage of albumin recorded, and the highest and lowest of urea. After that, until the 25th of March, the analyses were made from samples of total urine passed each 12 hours, the same percentages being recorded. After the 25th, samples of the total for each 24 hours were used. The totals recorded after the 14th do not represent the total amount of urine, as, in spite of instructions and precautions, some was invariably lost during defecation which occurred from twice to three times each 24 hours. This more particularly, as the patient grew stronger and more obstreporous.

Examination of urine secured on March 11th at 10:30 p. m.:

Amount, 4 ounces; color, dark yellow; appearance, cloudy; reaction, acid; specific gravity, 1020; albumin, 7-12 of 1 per cent.; sugar, absent; chlorides, decreased; urea, 1 per cent; indican, increased.

Microscopical examination:

Casts, blood, granular, hyaline and waxy; crystals, absent; epithelia, from pelvis of kidney and uriniferous tubules; pus, present; blood, present; bacteria, present.

March 13, 6 p. m.

Total quantity, 24 hours, 27½ ounces; albumin, highest, 8-12 of 1 per cent., lowest, 4-12 of 1 per cent.; urea, highest, 1¾ per cent, lowest, 1½ per cent; casts, gradual decrease.

One interesting feature was the appearance of hippuric acid crystals. Patient had taken 21 grs. hexamethylene-tetranine on March 10, which was transformed into hippuric acid.

March 14, 6 p. m.

Total quantity, 24 hours, 38 ounces; albumin, highest, 5-12 of 1 per cent., lowest, 5-12 of 1 per cent.; urea, highest, 2 per cent; lowest, 1 1-3 per cent; casts, marked diminution.

March 15, 6 p. m.

Total quantity, 24 hours, 36 ounces; albumin, highest, 6-12 of 1 per cent, lowest, 4-12 of 1 per cent.; urea, highest, 1¾ per cent, lowest, 1¼ per cent; casts, few blood and granular casts.

With the exception of the low percentage of urea, 1¼ per cent., the urine is better than on any previous day.

March 16, 6 p. m.

Total quantity, 24 hours, 41 ounces; albumin, highest, ——, lowest, 5-12 of 1 per cent; urea, highest, 2 per cent, lowest, 1¾ per cent; casts, very few, principally hyaline.

March 17, 6 p. m.

Total quantity, 24 hours, 45 ounces; albumin, highest, ——; lowest, 3-12 of 1 per cent; urea, highest, 2 per cent; casts, have disappeared; several examinations having been made for them, but without success.

March 18, 6 p. m.

Total quantity, 24 hours, 45 ounces; albumin, highest, ——; lowest, 5-12 of 1 per cent; urea, highest, 2 per cent, lowest, 1¾ per cent; casts, still absent.

March 19, 6 p. m.

Total quantity, 24 hours, 51 ounces; albumin, highest, ——, lowest, 6-12 of 1 per cent; urea, highest, 1¾ per cent, lowest, 1¾ per cent; casts, hyaline.

Largest amount of urine passed during treatment of the case.

March 20, 6 p. m.

Total quantity, 24 hours, 32 ounces; albumin, highest, 1 per cent, lowest, 8-12 of 1 per cent; urea, highest, 1½ per cent; casts, again appeared, principally blood and granular. Wounds in the back draining very slightly.

March 21, 6 p. m.

Total quantity, 24 hours, 31 ounces; albumin, highest, ——, lowest, 7-12 of 1 per cent; urea, highest, 1¾ per cent, lowest, 1¼ per cent; casts, increase in granular and blood; trace of sugar for the first and only time; 5:30 p. m. patient received 7½ ounces salt transfusion.

March 22, 7:30 p. m.

Total quantity, 24 hours, 20 ounces; albumin, highest, ——, lowest, 5-12 of 1 per cent.; urea, highest, 1½ per cent, lowest, 1¼ per cent; casts, granular; slight decrease; patient has been receiving salt transfusions.

March 23, 6 p. m.

Total quantity, 24½ ounces; albumin, highest, 1 per cent, lowest, 1 per cent; urea, highest, 1½ per cent, lowest, 1½ per cent; casts, few hyaline and granular; patient was removed to another hospital.

March 24, 6 p. m.

Total quantity, 32½ ounces; albumin, highest, 1 per cent, lowest, ½ of 1 per cent; urea, highest, 1¾ per cent; casts, hyaline.

March 25, 26, 27.

Total quantity for each 24 hours, averaged 33 ounces; albumin, highest, 1 4-12 per cent, lowest, 7-12 of 1 per cent; urea, averaged 1½ per cent; casts, hyaline and granular.

March 28, 29, 30.

Total quantity for each 24 hours, averaged 30 ounces; albumin, highest, 8-12 of 1 per cent, lowest, 8-12 of 1 per cent; urea, highest, 1¾ per cent, lowest, 1½ per cent. Casts, hyaline and granular.

By the examination of the urine twice daily, we have determined three effects that have hitherto been partially described by Harrison, Edebohls and Cabot, namely: the increased secretion of urine, decrease of albumin and casts, and the increase of urea.

As Harrison says: "The following may be regarded as some indications for relieving tension surgically in cases of nephritis: Progressive signs of kidney deterioration, as shown by the persistence or increase of albumin and casts; suppression of urine approaching the state of uremia; where a marked disturbance of the heart and circulatory apparatus arises in the course of inflammatory renal disorders."

DISCUSSION.

Dr. Dudley Tait, San Francisco—It is necessary to reason logically in these cases. Under the circumstances Dr. Goodfellow used good surgical interference. These cases are not all toxic. Referred to cryscopic work as means of diagnosis. Many have uremic conditions. In treatment of the present case, Dr. Goodfellow shows sudden increase of urine. This might be explained by possibility of stone blocking one side. Referred to elimination of epithelium and also toxic influence on the system.

Dr. J. Rosenstirn, San Francisco—I agree with Dr. Tait. In Edebohls' operation there has not been made any differentiation of the forms of nephritis. There may be nephritis from scarlet fever. I myself had scarlatina nephritis in 1871. I had albuminuria, but got over it, and have not had any sign of it since. There are not many cases which justify the operation. Patients get better for a time. The drainage will relieve the patient for a long time. I do not know the real benefits. The quantity and not the quality of urine is changed. The amount of urea excreted depends upon what the patient eats and drinks. The amount of urea does not give us any knowledge of the condition of the kidney.

Dr. L. Bazet, San Francisco—I have had no experience with this operation. I recall one case where the surgeon, having cut down upon the kidney, opened the capsule, as Dr. Goodfellow did, but before closing the wound removed a small section of the kidney and sent it to a pathologist to examine. In my belief in all these cases a small portion should be sent to the pathologist.

Dr. G.MacGowan, Los Angeles—Last year when in New York and Philadelphia I saw Dr. Edebohls do several operations. He is very honest about his work. I saw a few other doctors do the operation and did one myself. Dr. Edebohls' operation was beautiful. He had a considerable degree of confidence, and the operation takes from thirty minutes to one hour. I consider it very foolish to operate in all cases of Bright's. Sometimes there is great difficulty in getting at the kidney and decapsulating it.

Dr. D. D. Crowley, Oakland—I can say very little of the operation. I think a long incision is as good as removal of the capsule. As to technique, little has been said. In operation I raise the kidney into the wound. All that is necessary is to make an incision, puncture, insert a grooved director under the capsule, and then split it up. Otherwise I think with only the pressure of the hand in raising up the kidney there is not enough support made to cut the capsule properly without cutting the kidney itself.

Dr. K. Pischel, San Francisco—Has any opthalmoscopic examination of the eyes been made in these cases? In opthalmoscopic examinations we can see the condition of the retina, and what pathological conditions we find in the fundus we can find in other places. We can see the condition of the capsules, which is very important.

Dr. Goodfellow—I had expected that I would bring out more discussion as to the various methods of examination of the urine.

REPORT OF SIX CASES OF ACHLORHYDRIA.*

By AUSTIN V. MILLER, M. D., Ferndale.

LEAVING out cancer of the stomach, achlorhydria includes a class of diseases in which free hydrochloric acid is not found in the chyme. The condition may be congenital, it may rest on some neurasthenic basis, or it may be acquired in consequence of some organic gastric disease.

Undoubtedly there are persons whose hydrochloric acid secretion is absent for years or permanently wanting, yet who seem to be in the best of health. The majority of these individuals, however, have suffered from more or less frequent dyspeptic complaints. The function of the stomach may be permanently lost so far as its digestive power is concerned, yet with no apparent effect upon the general constitution. But gastric secretion is by no means a useless function It has been said that those who have lost it have one less weapon in the struggle for existence. Persons who have no secretion of gastric juice are much more liable to diseases of the stomach and intestines.

Achlorhydria is a disease of protean manifestations. The disturbances of function may long remain latent. Persons with anacidity may have no subjective nor objective disturbances of any kind, but sooner or later dyspetic complaints arise. The subjective sensations are not characteristic, but are often those of nervous dyspepsia, accompanied by eructations, fullness and pressure after eating, gradually leading to attacks of severe gastralgia. The symptomatology as based upon the complaints of the patient is most accentuated in neurasthenics. In persons of a perfectly sound nervous system achlia may exist and the individual may be unaware of it.

On the other hand, most of those coming to the doctor for relief complain of one or more symptoms of considerable severity. There may be a sense of weight in the stomach, lasting several

* Read before the Humboldt County Medical Society.

hours after meals, which increases to a severe gastralgia which is only relieved by vomiting. There is often anorexia, flatulence, and intestinal disturbances. These patients frequently give the history of having taken a vast array of drugs for an alleged disorder of the liver. It has been found and is illustrated in several of the following cases that loss of gastric secretion predisposes to diarrhea and intestinal catarrhs, which are not benefited until the gastric defect is discovered, when rational treatment effects improvement. These diarrheas are probably due to fermentative processes developed in the absence of hydrochloric acid secretion and dependent upon the lack of its antiseptic effects.

In the treatment of the condition, hydrochloric acid given after meals is of the first importance. Its action is threefold: First, it supplements the digestion of proteids in the stomach; second, it acts as an antiseptic; third, it is a tonic and stomachic. It has been questioned whether enough hydrochloric acid can be taken by the mouth to make up the gastric deficit. One hundred drops of dilute hydrochloric acid digest only four drams of egg albumen. Notwithstanding this doubt and theoretical objection it takes but a brief clinical experience to observe the remarkably good results from the administration of the acid even in comparatively small doses. For a full consideration of this subject see "Aclylia Gastriea," in Hemmeter's "Diseases of the Stomach."

Case I. March 20.—Mr. U., 62 years old. Every two or three days, vomits after a meal. Bowels are constipated for two or three days and then there is diarrhea for several days. The trouble has lasted five or six years. Examination.—Stomach on inflation with CO2. is not found to be enlarged. After the double test meal of Salzer, hydrochloric cannot be detected by the delicate test with dimethyl-amido-azo-benzol. There is no acidity with litmus. The total acidity using phenolphthalin as an indicator is 10°. Ordered teeth to be cleaned and attended to by dentist. Ordered diluted hydrochloric acid 20 gtt. after meals. March 31. Feels well, no diarrhea, no vomiting. Has continued well since.

Case II. April 7.—Miss V., 26 years old. Complains of vomiting supper five or six hours after taking it. Appetite fair. No flatulence nor eructations. Bowels regular. Examination—Stomach on inflation is normal in size. After double test meal, hydrochloric acid is found to be absent. Total acidity is 25°. Egg and meat of morning meal is not yet digested. Ordered 10 m. dilute hydrochloric acid after meals. April 15. Feels perfectly well. No trouble with stomach. Good appetite. April 22. Says she is cured. Analysis since shows continued absence of hydrochloric acid.

Case III. April 19.—Mr. W., age 49 years. Complains of a sense of weight in stomach and a pain in epigastrium; poor appetite; waterbrash; frequently bloats; never vomits; bowels regular. Has had to quit work. For last 11 years has been under treatment for disorder of stomach and liver and has complained of symptoms similar to these. Examination—Lower border of stomach on inflation at level of umbilicus. After double test meal a fair amount of chyme expressed. A small amount of egg and meat still undigested. Chyme consists mostly of bread and water. Hydrochloric acid absent. Total acidity 10°. Ordered 10 gtt. of dilute hydrochloric acid after meals. March 4. Is much improved. No more pain in abdomen nor back. Has gained five pounds. Analysis of stomach contents shows absence of hydrochloric acid and there is no acidity by litmus. Returns to work, taking 40 gtt. of dilute hydrochloric acid after meals.

Case IV. May 9.—Mr. X., age 51 years. Complains of excessive secretion of saliva. Anorexia; constipation; indefinite distress in stomach. Examination—Stomach contents withdrawn after Ewald's test breakfast. Considerable mucus present. Hydrochloric acid absent. Total acidity 10°. Litmus shows slight acidity. Lactic acid absent. Ordered XX gtt. dilute hydrochloric acid after meals. May 26. Weight has increased 10 pounds. Has no complaints. At last report he is feeling well as long as he takes the acid regularly.

Case V.—Mrs. Y. has had a diarrhea for two weeks, which is not checked by large doses of Bismuth subnitrate. Necessary to give morphin to stop the frequent evacuations. Complains of distress in epigastrium. Examination—After test breakfast hydrochloric acid is absent. Total acidity 45°. Ordered a mixture of Betanaphtol-bismuth and resorcin with 20m. of dilute hydrochloric acid after meals. Recovery from diarrhea complete.

Case VI. June 9.—Mrs. Z., age 41. Complains of pain and tenderness in epigastrium; vomits occasionally after meals; constipated. Has lost 14 pounds in six weeks, weight now 150. Trouble began six weeks ago, like an attack of biliousness. Examination—Stomach being inflated with CO2 its lower borner reaches 1½ inches below umbilicus. After double test meal hydrochloric acid is absent. Hemoglobin percentage is 50. Urine shows a slight excess of indican. Ordered 20 gtt. dilute hydrochloric acid after meals. Fluid ext. cascara for the constipation. July 1. Much improved, but complains of occasional biliousness. Ordered 40 gtt. dilute hydrochloric acid after meals. Aug. 25. No longer has any pain in stomach nor nausea, but complains of not getting strong, of feeling drowsy, bad taste in mouth and having to continue cascara. Examination—Hb. 65 per cent.R, B. C. 3,000,000 per cmm. After double test meal some meat, egg and coagulated milk still undigested. Hydrochloric acid absent. Lactic acid present. Total acidity 25°. Treatment—Continue hydrochloric acid with addition of iron for the anemia, and strychnia.

PUERPERAL SEPTICEMIA.*

By R. A. WHIFFIN, M. D., San Jose.

THIS subject has recently been brought so strongly to our notice that it seems to me a short paper to bring it before us for discussion will be pertinent at this time.

This is a disease that has probably existed almost as long as the human race, yet one that has not been understood until comparatively recent times. Dr. Oliver Wendell Holmes in 1843 made a strong plea for care in attending cases of confinement after attending autopsies or cases of erysipelas, but it fell to the lot of Semmelweis of Vienna, in 1847, to discover that what Dr. Holmes suspected was a fact, and to him we owe our first real knowledge of the causes of puerperal septicemia. It was not exactly an

*Read before the Santa Clara County Medical Society.

accidental discovery, but was made by comparing the symptoms of the fatal illness of Prof. Koletchka of Vienna, which illness was caused by a wound he received while dissecting, with those of puerperal septicemia, which they resembled. This resemblance made Semmelweis think there might be a connection between the two diseases, and to prove it he made all his students who were working in the dissecting room wash their hands in chlorine water before examining a pregnant woman, and by so doing reduced the mortality from septicemia among women confined by his students from 11.4 per cent to 1.27 per cent, which was certainly proof that unclean hands carried the disease. Without knowing it Semmelweis anticipated Lister and Pasteur in practical antisepsis. It was a long time before Semmelweis' ideas received much credence, but they have been gradually elaborated until at the present time we know that puerperal septicemia is caused by an infection with some microörganism, almost always from outside the uterus or vagina.

The actual cause of septicemia is the toxins elaborated by the microörganisms which infect the abraded surfaces and develop in the secretions and detritus left after childbirth. A number of bacteria can cause the disease; chief among the offenders are the staphylococcus pyogenes aureus and streptococcus pyogenes, and occasionally diphtheria or colon bacilli may be the cause; any pathogenic microörganism may cause the disease, although the infections by different microbes no doubt cause different degrees of severity of the disease. When we speak of one form of microorganism being the cause, I think we must consider the predominating microörganism, as there is no doubt very seldom a case caused by one microörganism alone.

The pathology is not very lengthy. When the bacteria once get inside the uterus they find conditions that are unsurpassed for development; the secretions are profuse and there may be a few shreds of membrane or a small piece of retained placenta which, with the heat and moisture, make excellent culture media. They develop rapidly, elaborating their poisons, which are as rapidly absorbed by the abundant blood vessels and lymphatics in the walls of the uterus and vagina. On the surface where the placenta has been removed and on the surface of any abrasions along the parturient canal may be found ruptured blood vessels and lymphatics; into these the bacteria advance, thus getting into the general circulation to be carried to other parts of the body. Those taken up by the lymphatics are more liable to lodge somewhere in the pelvis, causing cellulitis; those getting into the blood vessels by passing through the general circulation may form abscesses in any part of the body. In some cases we apparently have only the poisons absorbed from the uterus, resulting in a comparatively mild disease as there is only the one factory for toxins; when other abscesses occur we have several factories making toxins. In the very virulent cases where death occurs there is very little pathology; in fact, outside of the infection and inflammation of the uterus there is only to be found a beginning fatty degeneration of all the organs of the body; when the disease lasts for several days or weeks we usually have septicemia and pyemia combined, or, as it has been called, septico-pyemia, with abscesses outside of the uterus as well as general fatty degeneration. If the patient recovers we frequently find abscesses in the cellular tissue of the pelvis, or tubular or ovarian abscesses.

Passing over the symptoms, which can be read in the text-books, I will give you some of the methods of treatment which should most interest us as practical physicians and surgeons. The first thing we think of when a chill occurs or the temperature creeps up, is that there is some absorption from the vagina and we try a few vaginal douches; this, of course, providing we can find no other absolute cause for the chill or temperature. If the vaginal douches fail to accomplish a reduction of temperature and other symptoms of toxemia arise, the next thing is to douche the uterus; if that accomplishes our end we do no more, but if not, the patient is put under an anesthetic and a thorough curetting of the uterus done with a dull curette, giving a douche at the same time. Here is where a difference of opinion occurs; some surgeons believe in not packing the uterus at all after curetting, others in packing with plain gauze, which seems to me the most rational, while others use iodoform gauze, which I object to on account of the possibility of iodoform poisoning. Dr. Ochsner of Chicago packs with gauze saturated with alcohol, a treatment I have never seen used. Any of these packings should be removed in 8 to 12 hours and the uterus douched; in some cases repacking may be done, but I have thought that the best results were obtained by douching the uterus every 12 to 4 hours; in the treatment used by Dr. Ochsner, he repacks with gauze saturated with alcohol and keeps the patient in as near absolute rest as possible. He believes that absolute rest in all inflammations is a necessity in order to obtain the best results. Solutions for douching may be normal saline solution, lysol 2½ per cent, bichlorid of mercury 1-10,000 to 1-5000, or carbolic acid 2 per cent to 5 per cent. I prefer the solution of bichlorid of mercury, followed by normal saline solution until I see some slight symptoms of mercury poisoning, then changing to lysol. The lysol solution is more soothing to the patient. As to the quantity of solution necessary for each douche, I prefer

about four quarts, with the syringe or irrigator hung very low so as to make very little pressure and have the douche last from fifteen to twenty minutes. I think it is not advisable to leave any antiseptic solution in the uterus, as in its lax condition it will retain some, I make a practice of following mercury, lysol or carbolic acid irrigations with about two quarts normal saline solution.

We hear a great deal about antitoxins and the use of anti-streptococcus serum. To my mind there is no doubt of the value of anti-streptococcus serum if we can prove that the streptococcus is the offending microörganism, but that is something the general practitioner cannot often prove, and in fact, we are more apt to have a mixed infection. If we have a membranous condition present and a culture develops diphtheria bacilli in a few hours, we should certainly use anti-diphtheritic serum, but it would not be right to stop other treatment and depend entirely on the serum as we might have other infection as well. I don't want to be misunderstood in regard to serums, for I have great faith in them where we can prove that they are applicable; I simply want to carry the impression that it would be harder to prove the streptococcus to be the cause of severe symptoms than to prove the presence of diphtheria when a membrane is present. If we give anti-streptococcus serum I think we do so more as a precautionary measure than with a feeling of certainty that we are going to counteract a streptococcus infection. The use of formalin solutions which was loudly heralded a short time ago, seems not to be a practical treatment.

Sustaining treatment is of great importance and as usual, in cases of fever, we put the patient on a liquid diet, furnishing as much nourishment as possible with the least effort on the part of the digestive organs. Whiskey, with some physicians, has been a sort of sheet anchor in suppurative cases for a long time and does a great deal of good, but I prefer a nourishing diet and such stimulants as strychnin and nitroglycerin. I also think that an infusion of normal saline solution occasionally does a great deal toward diluting the toxins and helping the system to throw them off. Any other treatment would be for the relief of symptoms as they arise.

More important than treatment is prophylaxis; we, as physicians and surgeons should use every means in our power to have our obstetrical patients cared for in a cleanly manner, as near aseptic as possible, making the surroundings the best that circumstances will permit and leaving nothing undone by ourselves in the way of sterilizing our hands and instruments. It is seldom that we do not have time to prepare for taking care of our patients and there is always plenty of soap and water to be obtained for the asking. The vigorous use of that same soap and water and a good brush will save us a great deal of trouble and no doubt save some lives, although we may not be aware of it at the time. I wish to protest against the somewhat general idea that a little antiseptic solution to wash the hands in is sufficient; the hands should be thoroughly scrubbed with a brush and soap before using an antiseptic solution, and if the soap and brush are properly used I think the antiseptic solutions as usually used are little aid to antisepsis, but more of a show. I therefore make my plea for a more thorough use of soap and water and a good stiff brush. Running water is preferable.

A society for the study of tropical medicine has been organized at Philadelphia, with Dr. Thomas H. Fenton as president, and Dr. Joseph McFarland as secretary.

An appointment as assistant demonstrator of physiology in the Medical Department of the University of Pennsylvania is open for applications. The appointee will devote his mornings to laboratory teaching, his afternoons to research, and will receive a salary of $500.—*Science.*

NOTE: As there will undoubtedly be a great many applicants for a position carrying such a munificent salary, "call early and avoid the rush."

INTERESTING BULLETIN.

Studies of the Food Value of Fruit at the University of California; a bulletin (No. 473) of the Dept. of Agriculture, compiled from the experimental work of Prof. M. E. Jaffa, U. C.

"The cost of the fruitarian diet per person per day varied from 18 to 46 cents, values which compare favorably with those found for an ordinary mixed diet.

"Although it is undoubtedly advisable to wait until more data have been gathered before making definite statements regarding the digestibility of different fruits and nuts, enough work has been done to show that they are quite thoroughly digested and have a much higher nutritive value than is popularly attributed to them. In view of this it is certainly an error to consider nuts merely as an accessory to an already heavy meal and to regard fruit merely as something of value for its pleasant flavor or for its hygienic or medicinal virtues.

"As shown by their composition and digestibility, both fruit and nuts can be favorably compared with other and more common foods. As sources of carbohydrates, fruits at ordinary prices are not expensive; and as sources of protein and fat, nuts at usual prices are reasonable foods.

"In the investigations at the University of California the question of the wholesomeness of a long-continued diet of fruit and nuts is not taken up. The agreement of one food or another with any person is frequently more or less a matter of personal idiosyncrasy, but it seems fair to say that those with whom nuts and fruits agree can, if they desire, readily secure a considerable part of their nutritive material from such sources."

TUBERCULOSIS IN FOWLS.

By ARCHIBALD R. WARD, D. V. M.,
University of California, Berkeley.

IN ACCORDANCE with the provisions of the legislative act creating the California Poultry Experiment Station, and in compliance with the oft-repeated request of poultrymen, investigations have been made during the past summer on poultry diseases. Dr. V. A. Moore* of Cornell University, and the writer, have made frequent excursions in the poultry-raising districts and have, through the courtesy of many interested individuals, obtained diseased fowls for examination in the bacteriological laboratory at Berkeley. One of the conclusions drawn from the summer's work is that tuberculosis is one of the important diseases of fowls. While much remains to be done in the way of conducting practical tests of the means of controlling the disease, some facts are available for publication at the present time. Tuberculosis in fowls is a well-known disease in Europe, and its control has been discussed by Dr. med. F. A. Zürn (1), Cameron (2), Meek (3), Zurn (4) and E. S. Zurn (5). The disease is described by several American writers, among them Salmon (6) and Chester (7), but the writer has so far succeeded in finding but one American writer—Pernot (8)—describing an outbreak of the disease.

As observed by the present writer, the disease exists extensively among the large poultry ranches, but seldom kills a sufficient number of fowls at any one time to excite the alarm of the owner. Its existence in a flock constitutes a steady drain, but it attracts slight attention because poultrymen are accustomed to large losses from diseases and reckon such as a part of the business. In one instance the disease was brought to the attention of the writer by an owner who reported a loss of about 250 out of a flock of 1400 fowls in a year. The owner had made a large number of post mortem examinations, and as the lesions are easily recognized, the observation has some interest.

Symptoms are only noticeable in advanced cases. The bird becomes excessively emaciated, a condition which is easily recognized by the atrophy of the pectoral muscles. The victim crouches from weakness and in some cases lameness or peculiarity of gait are observed. Post mortem examination of lame hens has sometimes revealed tubercular lesions of the femoro-tibial articulation, and in other cases no lesions in the legs could be demonstrated. The comb is usually pale and the voice is weakened in some cases. The attitude, condition of the feathers, etc., constitute features by which a bad case of tuberculosis in the hen may be recognized at a glance, quite as readily as a similar case in man.

The following observations are based upon thirty post mortems. Lesions are most frequently shown by the liver and spleen. The liver may be more or less enlarged, altered in color and sprinkled with gray or slightly yellowish tubercles varying from 3mm. in diameter down. (See Fig. 1.) The spleen may merely show small tubercles

Fig. 1.

or may be distended to several times its normal size by tubercular growths. The mesentery is occasionally sprinkled with tubercle as shown in Fig. 2. Tubercles on the intestines are quite com-

Fig. 2.

mon and not infrequently hollow tubercular masses as large as a walnut communicate directly with the lumen of the intes-

*The writer desires to acknowledge the assistance rendered by Dr. Moore in collecting the data upon which this article is based. A more comprehensive paper was read at the recent meeting of the American Veterinary Medical Association and will appear in the forthcoming volume of the transactions of that association.

tine. Lesions of the heart, kidneys, lungs and skin, are comparatively uncommon. In one case only have the lungs been involved—sprinkled thickly with small, grayish, glistening tubercles about the size of a millet seed.

The one case in which the skin was involved presented interesting lesions. The fowl was very much emaciated and the pectoral muscles were practically all atrophied. (See Fig. 3.) The skin was sprinkled with isolated and grouped nodules varying in size from 1 to 10 mm. in diameter. They are especially numerous on the neck (See Fig. 4), breast, inside of thighs and wings. On the skin over the crop extending back along the median line to the sternum, and about the cloaca, were thick masses of tubercular nodules. Large masses were beneath the right eye, also. In all cases the nodules were confined to the skin proper, the subcutis and muscles not being involved. The tubercles seemed, in nearly every case, to be at the root of the feather. The tubercles were encased in a membranous capsule and on section appeared to consist of a whitish semi-solid substance which was easily expressed by pressure. The internal organs were normal.

Fig. 3.

Tubercle bacilli were readily demonstrated i the various lesions from time to time by stained smears and in sections. Cultures were likewise obtained. Mention of the avian tubercle organism immediately suggests several important questions about the relation of avian to human and bovine tuberculosis, but the writer is not prepared to discuss these topics at present.

In considering the possible hygienic significance of fowl tuberculosis, the desire is awakened to know whether or not the organisms are present in the egg. It appears to be true that hens badly infected do not lay. In the thirty post mortems of tuberculous hens that have come under the writer's observation, but one hen contained an egg in the oviduct. The thorough cooking to which poultry is subjected renders rather remote the possible danger of human infection by ingestion. Careful observations to determine if newly hatched chicks suffer from tuberculosis will throw light on the question of tubercle bacilli in eggs.

The tuberculin test apparently is not available for diagnostic purposes. About twenty tuberculous hens have been tested with varying doses of tuberculin from a manufacturing house and that prepared by the New York State Veterinary College, without satisfactory change in temperature. Some tuberculin is being prepared from a culture of the avian tubercle organism. Should the tuberculin test prove successfull on hens its use would have to be restricted to the laboratory. It would be hopelessly impracticable to attempt to weed out tuberculous hens because of the great number of individuals flocking together under the conditions obtaining in the poultry industry in California. Under these circumstances all the individuals of an infected flock must be regarded as possible sources of danger to healthy birds. Taking advantage of the experience in the control of tuberculosis in cattle, we can rest assured that a flock of healthy birds can be raised if constantly kept from contact with tuberculous birds and on land that has not recently been contaminated with diseased ones. The useful life of a hen is so short that there is justification for believing that such a procedure would, in three or four years, result in the eradication of the disease.

Fig. 4.

In some chicken ranches where the disease is prevalent, all the available land is already utilized

for fowls, which fact would necessitate fencing off a piece of the infected land for separating the young stock from the old infected ones. Such a procedure would involve the disinfecting of land and buildings. Buildings could be readily cleansed by some of the creolin preparations already employed against mites, but the disinfection of extensive areas of land offers a more serious, but by no means insurmountable, obstacle. Sunlight can be depended upon in time to kill the tubercle bacilli in the surface layers of the soil, but just how quickly this can be accomplished remains to be determined.

It is believed that the spread of the disease among flocks of diseased fowls might be lessened by weeding out all hens that are poor and have pale combs. These might be kept in a separate enclosure until their gradual decline or recovery decides the question whether or not they are diseased.

REFERENCES:

1. Dr. Med. F. A. Zürn. *Die Krankheiten des Hausgeflugels.*
2. Sir Charles A. Cameron, M. D. *Transactions of the Royal Academy of Medicine in Ireland*, Vol. VII, 1889, p. 368.
3. Alex. Meek. *Journal of the Board of Agriculture* (Great Britain), Vol. IX, p. 189.
4. Hofrath Prof. Dr. Zürn. *Die Tuberkulose der Hausthiere und deren Vorbeugung*, S. 27.
5. Dr. E. S. Zürn. *Fuhling's Landw. Zeitung*, No. 48, 1899, S. 625.
6. Dr. D. E. Salmon. *The Diseases of Poultry*, p. 208.
7. F. E. Chester. Bulletin No. 47. Delaware College Agricultural Experiment Station, p. 28.
8. E. F. Pernot. Bulletin No. 64. Oregon Agricultural Experiment Station.

THE DUCTLESS GLANDS.*

By W. E. UPTON, M. D., Napa.

THE ductless or vascular glands elaborate materials which produce through the circulatory system definite influences over remote parts. Some of these chemical materials are highly antitoxic and necessary for the preservation of life. Thyreoid medicinally given internally, produces increased activity of combustion throughout the body, and in certain conditions much loss of weight. Myxedema gives an example of increased metabolism when thyreoid gland is given. This increase of metabolism does not occur, however, in all who take it. The best effect is where there is a condition of obesity with myxedema. Thyreoid extract has been administered successfully in myxedema, which is due to absent or inactive thyreoid, characterized by lowered temperature, impaired intellect, memory and speech, skin thick and dry, with shedding of epithelium. Under thyreoid treatment myxedema patients soon improve. The normal temperature returns, intelligence, memory and speech are restored and thickening of the skin disappears; which return when the remedy is stopped. Cretinism is congenital myxedema, and has improved under thyreoid treatment, but returns with suspension of treatment.

Thyreoid gland given in cretinism is very active, and the patient becomes reduced in size at first by loss of unhealthy fat. There is increased appetite and improved digestion, then gain in weight, in healthy, firm tissues, soft moist skin the gradual improvement of brain tissue and mind. Simple goitre is often greatly benefited or cured by thyreoid treatment. In many skin diseases it also has given good results and it has been recommended for many other diseases. Symptoms of thyreoitis are tachycardia, depression, glycosuria, albuminuria, exophthalmos and irritability. Thyreoid is contra-indicated in tuberculosis and heart disease.

Very little is known of the function of the spleen. The substance of the spleen has been used in various disorders of the blood, the idea being to supply to the tissues some material necessary to health. Serious improvement of its functions by disease is usually followed by tissue change and changes in temperature. It secretes some bactericide which is indicated by enlargement of the organ in many acute and infectious diseases, as though working against the germs of disease. The use of the spleen in medicine was suggested by that organ's enlarging in some cases of cretinism and myxedema. In medicine it has been found to aid digestion and nutrition and increase the cutaneous circulation. It gives rise to increased number of red corpuscles, and has proved of benefit in anaemia, also in typhoid fever by producing leukocytosis. It steadily reduces the temperature and is said to quickly restore the patient to normal condition.

Disease of the suprarenal gland is followed by progressive asthenia, bronzing of the skin, loss of digestive power and vomiting. Destruction of these organs is thought capable of causing an accumulation of toxic agents, which is the principal cause of fatigue and general asthenia of patients suffering from Addison's disease. Diseased glands from Addison's disease have been found to be inert. The suprarenal secretion has remarkable physiological properties, and is a local astringent or constrictor and cardiac stimulant. It reduces congestion and hastens the absorption of inflammatory tissue. It has given good results in Addison's disease and in exophthalmic goitre. It lessens the heart beats and decreases the size of the thyreoid gland. A toxic substance has been isolated from the suprarenals which is identical with muscle poisons originating in the muscles. a substance foreign to the suprarenal capsules. These organs appear to have the destruction of toxic products as a function.

The thymus gland is active only during the first two or three years of life during rapid development, after which it becomes atrophied. Its physiological action appears to be similar to that of the thyreoid gland, except that it is weaker.

* Read before the Napa County Medical Society.

THE PREVENTION OF PERINEAL LACERATIONS.*

By EDWARD N. EWER, Oakland, Cal.

THIS paper is not written for the purpose of exploiting any special method for the prevention of perineal lacerations, but rather to call attention to the bearing upon the subject of certain more or less neglected obstetric procedures.

Descriptions of contrivances and maneuvers for application only at the end of the second stage of labor have formed the bulk of the journal literature on the preservation of the perineum for many years, but it is notable that only a very few such measures have secured a position among the accepted obstetric methods. The others have been useless, and some, especially those which consist of manipulations with the rectum and at the vulval orifice, with the possible exception of the little operation of episiotomy, are positively harmful. The fact that no such universal method exists, does not relieve the obstetrician of the obligation which rests upon him. The obstetrician is the general practitioner. He is the benefactor of the gynecologists, but the writings of these gentlemen do not indicate that they appreciate the benefactions, for they continually refer to the obstetrician in terms of reproach for his sins of omission. There are two ways by which the obstetrician can escape this just criticism. He can give more attention to preventive measures and he can do more to repair the injuries at the time they occur. During the last few years tears of the perineal body show upon the surface are generally repaired at once, but vaginal lacerations, often involving the muscles of the pelvic floor, are as frequently neglected. These should not be left to the gynecologist. He is evidently having difficulty with them, if we may judge by the frequency with which new operations for their repair are described in the journals.

There are considerations which tend to prevent the prophylactic side of the subject from receiving the care that it should. The general practitioner considers obstetrics the burden of the profession. It is poorly paid and he has been accused of neglecting it on that account. Certain it is that the gynecologist is better paid for repairing the damage than the obstetrician is for preventing it, or for immediately repairing it.

As a matter of fact, barring careless instrumentation, severe perineal and vaginal lacerations (the ones which present difficulty in the immediate repair), are nearly always caused by some abnormality in position or in presentation, or in disproportion between the child and the maternal pelvis. It behooves the obstetrician to study each case with care and render the proper artificial aid at any and all points where nature fails to preserve the normal mechanism. He should even remember the possibility of disproportionately large babies when he is giving the pregnant patient her first instructions at the time she acquaints him with her condition. The usual history should be taken and special attention given to the character of previous confinements. If she has had children of over average weights, she should be given instructions regarding the proportions of the foodstuffs which should be present in her diet to rectify this tendency. I am satisfied from my own experience that much can be done along this line, and that much will be done as soon as the profession becomes divested of the belief that any restriction of the mother's diet is attended with danger to the child. Williams (1) crediting the investigations of Prochownick and Florschutz states that a diet poor in carbohydrates and fluids exerts a marked influence upon the weight of the child without otherwise affecting it, and in not a few cases these precautionary measures may obviate a difficult delivery or even do away with the necessity for the induction of premature labor. I always advise a restricted diet to patients who have borne excessively heavy babies, to those who have slight pelvic contractions, and to all primiparæ. The carbohydrates and fluids are greatly decreased, fruits are allowed in large quantities and the proteids are little if at all diminished. I have seen several babies of under average weights which I believe I am justified in ascribing to such dietetic treatment of the mother, and in each instance the delivery occurred without lacerations and was not unduly rapid. Furthermore, the children were strong and their weights between the fifth and sixth months exceeded the normal proportion of twice that at birth.

I am fully aware that investigations as to the dietetics of pregnancy are insufficient to establish it upon a thoroughly scientific basis, but enough is known to warrant the belief that more exact knowledge favorable to this kind of treatment, will be gained. As one investigator (2) remarked, we know enough to be sure that a relationship *does* exist between the nourishment of the mother and the development of the fetus, and between the condition of the mother and the character of the confinement, and this being so it is as justifiable to attempt to influence the character of the labor through the nourishment of the mother as it is to administer chloroform, ether or narcotics to ease the labor pains.

I would say nothing about the management of normal first and second vertex positions in the second stage were it not for the high percentage of lacerations authors give for all labors. It is generally stated as 30 to 40 per cent. As 90 per cent of all labors are normal so far as position of child and length of labor are concerned, the proportion of tears for this class of cases is al-

*Read at the Thirty-third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

together higher than need be. The technique, as usually taught, should accomplish much better results than this. The two cardinal points in the management are first, the maintenance of flexion until the occiput has reached the lowest possible point below the pubic arch; and second, chloroform anesthesia to the surgical degree when the head is about to extend. The posture of the patient is important, as it must be one which will afford the operator complete control of the advancing head. This is utterly impossible with the patient in the dorsal position lengthwise of the bed. There are only two proper positions and these are the left lateral, and the dorsal-across-the-bed, with the hips at the edge and the legs held by two assistants. The left lateral position is decidedly the more practicable. With the patient in this position, the hips at the very edge of the bed and the legs partially flexed, the operator controls the advancing head with the fingers of the left hand on the occiput, reached by passing his left hand over the patient's abdomen, and between the thighs from the front. His right hand is idle, but ready to assist when extension is about to take place. If the perineum is not firm enough to hold back the sinciput, and thus keep the head flexed until the occiput is sufficiently advanced below the pubic arch, the right hand should assist by exerting some pressure over the anus. No pressure should be exerted over the perineum itself between the anus and vulva and no manipulation of the vulva orifice is allowable. When the prominence of the occiput has been delivered beyond the pubic arch, the heel of the hand is placed between the tip of the coccyx and the anus and the head crowded forward with due regard for the integrity of the tissues about the clitoris. This pressure behind the anus will produce extension, which must proceed slowly and be controlled perfectly by the left hand on the occiput. At this time the best results are obtained when the perineal muscles are relaxed as much as possible by complete chloroform anesthesia. There need be no fear of *post partum* hemorrhage after this use of chloroform. If, however, there is any reason why chloroform cannot be given, the head should be extended and delivered between the pains. The shoulders are carefully delivered by allowing the anterior one to pivot against the pubic bone after rotation, while the posterior is delivered. This method with the natural lubricant should not be attended with more than 10 or 12 per cent of lacerations, and it should be rare for one of these to be beyond the first degree. I am tempted to say that a complete laceration need never occur under such conditions. Such minor lacerations, with two or three silk-worm gut sutures heal very nicely; as well perhaps as clean perineal or episiotomy incisions.

The operation of episiotomy is, however, deserving of some consideration in a paper such as this. It would be of greater value if it were possible to know in any given case that laceration is inevitable. If properly performed, it will cause no harm, and if done whenever the operator feels certain that his other measures will fail, it will be sure to prevent some bad tears. It should be done according to Dickinson's (3) directions. The cuts about one inch long and a quarter inch in depth, severing the resisting band which is felt about one-half inch within the tense edge of the vulva. The important point in the operation is to make the cuts parallel with the long axis of the woman's body, and not at right angles to the edge of the vulva as it is being distended by the head. As usually performed, the posterior ends of the incisions are found after labor to approach each other on the posterior wall of the vagina, thus enclosing a triangular space containing the perineal body. In that case, the damage might be as great as in the ordinary second degree tear, and involve the same structures. Instead of approaching each other, the incisions should be found to be parallel after labor. They are easily united with running sutures of fine catgut.

Twitchell lays great stress upon the preservation of the natural lubricant during the process of the labor. If this slippery material is repeatedly removed by too frequent digital examinations, or by douches, perhaps containing astringent antiseptics, the head will not slide as it should on the perineum, but will push it forward, thereby diminishing the distance from the tense edge to the pubic arch and favoring laceration. Hot douching during the first stage is sometimes recommended to relieve spasm of the cervix, and to increase uterine force. The cervix will dilate if the head advances properly flexed through the superior strait; and if the position and pressure are incorrect, no amount of douching will assist the cervix to dilate. The uterine force can be augmented by better means than the hot douche. It is quite customary when forceps are to be used to scrub out the vagina carefully with a piece of antiseptic soap and then copiously douche with lysol or creolin solution, which is supposed to replace the natural lubricant washed out. It will not do so. Asepsis is necessary, and operative interference has generally been held to be an indication for douching, but Bretschneider's often quoted study seems to disprove it. Of 256 operative cases 119 were douched during labor, and 35 per cent had some fever, while of 135 not douched 29 per cent had fever. If douching is not necessary, then, to secure asepsis, its only effect is the deleterious one of washing out the natural lubricant just before the forceps are applied, when it is most needed.

In the 10 per cent of abnormal labors, assum-

ing that that is about the usual proportion, the common causes of delay are abdominal inertia, overgrowth of the child and arrested posterior positions of the vertex, all of which have the effect of prolonging the second stage, and thus materially increasing the danger of injury to the structures in the pelvic floor. These conditions will generally demand the use of forceps, and the manner of their use is of great importance to our subject.

Beatty of Dublin in the early part of the last century was challenged to fight a duel for writing a paper in which he stated that the proper and timely use of forceps was unattended with danger to the child or mother. It is a well recognized fact that in protracted second stages many lacerations can be prevented by extracting the head with instruments before the vagina has become bruised and dry. One author says it is a good rule not to use forceps in a primipara until she has been twenty-four hours in labor, nor in a multipara till she has been in labor twelve hours. The time element in the indication for forceps has reference to the second stage, and not to the total number of hours the patient has been having labor pains. It is a better rule to assist with forceps if distinct and continuous progress is not made within two or three hours after the cervix is fully dilated. If careful, slow and intermittent traction in the axis of the canal extending over at least twenty minutes, and without douching the vagina, be made at this time, the results to the maternal soft parts will be far better than they will if the head be allowed several hours longer to mold through the pelvis.

In regard to forceps, I wish to urge the use of the axis traction instrument. I am convinced that it should be used, as advised by Milne Murray, in every forceps extraction, whether the head be at the superior strait or at the pelvic outlet. It is only half-heartedly recommended by American authors for the medium or high operation. It is of as much or more use when the head has reached the pelvic floor. With it, extension will never be begun until the occiput has been brought below the pubic arch. It should not be removed until the whole head is born. I have seen at least two tears into the rectum made by improper traction with Elliott's forceps in the hands of men who had used them many times before. It may be argued that this was not the fault of the forceps, but if they are so often used wrongly they should be discarded for an instrument which has its own indicator for proper traction, attached. Many operators will decide that their traction has never been perfect after their first use of an axis traction instrument. The objection seems to be that it is complicated, cumbrous and hard to use. If this objection is valid when applied to the Tarnier forceps, it is not valid with the one known as Neville's. It is commonly used in Ireland, and has been preferred at the Rotunda in Dublin for a number of years. The blades are of the Barnes shape, and have Neville's apparatus attached. The traction apparatus is entirely outside the vagina when the forceps are applied, and it can be detached in an instant when desired. There is an arrow indicator at the joint in the traction rod which is parallel with the Fenestra of the blades, and when the force is exerted in a line with the arrow, true axis traction is the result. I believe that this instrument will save many a perineum if used instead of the ordinary forceps.

Among the various abnormal positions which may become factors in the causation of bad tears I have encountered the occipito-posterior most frequently. If this position be found, the probability is that the labor will be long, that the soft parts will become edematous, that the lubricating secretion will be absent, and that the great distention of the perineum when delivery is accomplished with forceps, by overflexing the head and then extending it, will result in extensive injury to the soft parts. I have managed eight persistent occipito-posterior positions in this manner, and while none of the children were injured, the effect on the perineum was not satisfactory. No complete ruptures occurred, but lacerations to the second degree were generally present. The treatment which seems to be attended with the best results is anterior rotation with forceps. The text-books unanimously condemn it, but they offer nothing which gives anything like the results reported by those who use it. The American Text-Book states that it rarely succeeds and is capable of serious injury to the child, but Richard C. Norris (4), the editor of the book, rather enthusiastically recommends it in other writings, and his detailed description of the technique I would recommend to those who, like myself, are not satisfied with direct traction and wish to try it. Brodhead (5) and others of New York advise and practice it, and report excellent results. Briefly, the method is to bring the head to the pelvic floor, if it is not already there, with an axis traction instrument, and then rotate the occiput to an anterior position, preferably with the Tucker solid-bladed forceps. To prevent lacerations of the vaginal walls, the tips of the blades must be kept in the axis of the canal, and this is done during the rotation, by deviating the handles of the forceps in the direction toward which the concavity of the pelvic curve of the instrument is directed. The head is held in the new position until the body rotates, and then the forceps are re-applied to the sides of the head and delivery completed. Of course this procedure is only applicable when the longest diameter of the head has passed the superior strait. If the head will

not engage at the brim, the true high forceps operation would be necessary, and that I believe to be bad practice. Version is to be preferred.

REFERENCES:

1. Williams. *Obstetrics*, p. 176.
2. Prochownick. *American Gynecology*, October, 1902.
3. Episiotomy. *American Text Book of Obstetrics*, 2d Edition, Vol. I, p. 424.
4. R. C. Norris. *Therapeutic Gazette*, April 15, 1901.
5. Brodhead. *American Journal of Obstetrics*, December, 1900.

DISCUSSION.

Dr. Z. Malaby, San Francisco—There is very little left to be said about this paper of Dr. Ewer's. He has covered the subject very completely and I heartily agree with him in everything except the last—rotation of the head with the forceps. With the right hand make strong pressure against the head during the pains. I frequently hold the head for fifteen or twenty minutes and cannot help but notice the good results of each pain by this method. From the doctor's paper I would infer that he would give chloroform in all cases while the head is passing over the perineum, especially the likelihood of a tear. I would like to ask if he always follows that method? About three years ago this subject was brought up for discussion, and some advocated lubricant oils. I think that nature helps more than all else in these cases. The tear in the perineum is caused from the shoulders; very often when the head is being delivered, the two shoulders are presented at the same time. I have frequently seen tears caused from this. I therefore, after the head is delivered, if the cord is not around the neck, see that one shoulder is pushed back and the other one delivered. Regarding the rotation of the head with forceps, it takes an expert to rotate the head in that way and not lacerate the head in several places. In a well equipped hospital or an up-to-date house with a physician who has had considerable experience in using the forceps, it may be a good procedure, but as a general routine, I certainly would not advocate it for rotating the head.

Dr. W. N. Sherman, Fresno—I want to speak of one point in regard to the delivery of the shoulders. After the head is delivered and the rotation has taken place, the head should always be elevated with the hand, and the upper shoulder held back behind, while the lower one is born. This is the method I have adopted for many years and have saved many accidents in that way.

Dr. F. P. Topping, San Francisco—I would like to say one thing advocating the left lateral position. It is used entirely at the Rotunda Hospital, Dublin. When the head is on the vulva the parts are pressed back, therefore we can further aid the distention of the outlet. In some cases we get very good results by using a pad at about 118° kept constantly on the perineum between the anus and the vulva. There was one other point about the axis traction. In Dublin they never use long or straight forceps; it is always the Nevel's forcep. The advantage is that the axis traction is entirely without the pelvis. It is very low down and there is only one point to watch and that is the arrow indicator which, kept within a certain line, will always give true axis traction.

Dr. A. S. Parker, Riverside—I would like to speak of the use of the ordinary forceps to get axis traction. In place of taking the handles, I slip my finger between the blade, catching them higher, and with good strength in the hands you can use traction on most forceps by catching them high up. In any ordinary case you can get as much traction as is necessary. You have much better control of the movements of the head than pulling.

Dr. D. A. Hodghead, San Francisco—There were so many excellent things in the papers that it is hard to discuss them. There is one subject I would call attention to and that is in regard to the delivery of the shoulders. I believe myself that the shoulders are the cause of lacerations of the perineum. Frequently after the head has been delivered, the perineum relaxed and the body allowed to rotate in the anterio-posterior position, the obstetrician places one finger in the axilla and the shoulder plows its way through the perineum. One way to prevent that is to prevent the extreme rotation of the body. Remember the various mechanisms of flexion and rotation of the occiput to the front and after extension then external rotation. The occiput should be allowed to come back to about the position already occupied. If you permit the head to rotate too far, then you have the shoulders in the anterior posterior diameter. But if you permit it to rotate so that it occupies the position it did and the shoulders come down in that diameter, they do not rotate to the extreme and instead of passing over the central portion, pass to the right of the perineum.

Dr. J. Maher, Oakland—From my experience my belief is that if perineal lacerations occur it is after the head has been delivered. I think the shoulder is responsible for this. When the head is delivered, the whole weight of the child comes upon the shoulder. I believe the way to prevent this is by taking hold of the head with the left hand and at the same time support the perineum with the right hand.

Dr. E. N. Ewer, Oakland—Dr. Malaby asked if I would use chloroform in all cases. I certainly would to a moderate degree in every case, whether there are lacerations or not, principally to save the woman pain. I have delivered many cases that way. In regard to Dr. Malaby's criticism as to rotation of the head in anterior occipital rotation, one reason I rotate the head in that way is to prevent laceration. I have never used that method until recently. I recommend it principally from the writings of well-known men whom I have studied very carefully. Recently I have had occasion to use it and was astonished at the ease of it.

INFECTIOUS PULMONARY EDEMA.

PRELIMINARY REPORT.*

By W. OPHÜLS, M. D., San Francisco.

WHILE I was studying mixed infections in pulmonary tuberculosis, I met with a condition which, to the naked eye, had all the appearances of an acute pulmonary edema such as we are accustomed to see in cases of disturbance of the circulation in the lungs. It nearly always occurred in the posterior lower parts of the lungs, and involved large parts of the lower lobes in a diffuse manner; the pleura over the affected parts had a smooth, shining surface. The cut surface was dark red, often clearly bluish in color, and smooth. On pressure a clear, slightly blood-stained foamy fluid was discharged from the pulmonary tissue. There was an increase in consistency of the lungs, but not enough to speak of a consolidation. On microscopical examination one found in these cases a marked hyperemia of the septa, the air spaces more or less filled with coagulated fluid, desquamation of the alveolar epithelium, no or very few polymorphonuclear leukocytes, and in other words, a typical edema. Yet when one stained the specimens for bacteria, the edematous fluid was found to contain them in

* Read at the Thirty-Third Annual Meeting of the State Society, Santa Barbara, April 21-23, 1903.

very large, often enormous, number. The bacteria encountered most frequently in such cases were the pneumococcus and streptococcus, both of which are known to produce inflammatory edema in other parts of the body. The conclusion, therefore, was nearly unavoidable that the edema in these instances was an infectious one and not produced by disturbances in circulation. These observations led me to make a systematic study of all cases of pulmonary edema that came under my observation. It is the purpose of this paper to give a short report of the results of these investigations.

From my material I excluded all cases of pulmonary tuberculosis, as well as all cases in which there were definite pneumonic changes on the side on which the edema was found. In this way I collected among about 100 necropsies performed during the last eight months, 15 cases in which there was an extensive, in most instances bilateral, edema of the lungs. The cases were not selected, but consecutive ones. They embraced the following conditions: Chronic nephritis and heart disease, 3 cases; chronic heart disease alone, 4 cases; cerebral hemorrhage, aortic aneurysm, emphysema, empyema on the other side, cirrhosis of the liver, pernicious anemia, cholelithiasis and carcinoma of the prostate, 1 case each. Among these 15 cases I found only 4 in which the edema evidently was produced by disturbance in circulation: i. e., in which cultures as well as sections were free from bacteria. They were 2 cases of chronic nephritis with heart disease, the case of aneurysm of the aorta, and the case of carcinoma of the prostate. In all other cases bacteria were found not only in cultures from the edematous parts of the lung, but in sections as well, and always in considerable, sometimes very large, number. In 6 of these 11 cases there was no appreciable emigration of polymorphonuclear leukocytes. In one of them the edema was hemorrhagic and in another the very numerous bacteria had produced, in addition to the edema, extensive necroses in the tissues. In the remaining 5 cases a beginning emigration of polymorphonuclear leukocytes was noticeable; in 3 of these the edema was hemorrhagic. In these last 5 cases, of course, there cannot be any doubt that we have to deal with an inflammatory edema produced by bacterial infection. The bacteria found in the eleven cases were either pneumococci (8 cases) or streptococci (3 cases). In 6 cases these organisms were present practically in pure culture; in the 5 other cases non-identified bacilli were found with them, which I have all reason to believe were organisms of putrefaction.

I believe that even in those cases in which there was no emigration of leukocytes, indicating the infectious nature of the process, one may be tolerably certain that the condition was caused by the presence of the bacteria. In the first place, both pneumococci and streptococci are known to produce inflammatory edema, often with very slight leukocytosis; in the second place, it does not seem very reasonable to assume that their presence in these cases is merely accidental. It is true the presence of pneumococci especially have been demonstrated by culture experiments at times even in healthy lungs, but they were always present in very small number, such small number, in fact, that one would not find them in sections, and the very nature of the bacteria encountered precludes the possibility of their having developed during the time which elapsed between death and necropsy, from a few to the enormous number in which they were encountered in the sections.

From my experience I should conclude, therefore, that the most frequent form of pulmonary edema encountered at necropsies is an infectious edema caused by pneumococci or streptococci. I am well aware that the majority of cases that come to clinical observation are very probably edemata due to circulatory disturbances. In many cases this is proved by their rapid subsidence as soon as the circulation in the lungs is restored to a fairly normal condition. We find the inflammatory edema so frequently, at necropsies, because it is, to my mind, the most frequent form of terminal infection that carries off patients with impaired resistance on account of chronic disease.

In looking over the literature of the subject I fail to find any mention of the infectious edema in any of the common text-books, except in the form of a collateral edema in cases of pneumonia. Orth, even, directly states in his text-book: *"Fur die Annahahme eines allgemeinen entzundlichen oedems, einer sog. pneumonia serosa, lassen sich Keine genugenden Grunde vorbringen.* Rivalta (*rev. Centralbl. f. Bact. XVI* 456) describes the occurrence of acute infectious edema in 51 cases of pneumonia. Only Kockel seems to have recognized the frequency of infectious edemata. In a paper read before the Naturforschervers-amlung at Frankfort in 1896, he describes cases of pulmonary edema following injuries to the head, fracture of the spinal column, typhoid, etc., in which he found streptococci, pneumococci and staphylococci in the lesions.

The infectious edema, then, would manifest itself anatomically in a diffuse hyperemia and edema of the posterior parts, usually of both lungs. It may be regarded as an abortive form or the forerunner of catarrhal pneumonia, i. e., those forms of pneumonia in which we have a more or less turbid serous exudate and which produce the condition that is known as splenization of the lungs.

THE EYES OF SCHOOL CHILDREN.

At the last annual meeting of the American Medical Association, the House of Representatives, on the recommendation of the Ophthalmological Section, passed the following:

Resolved, That it is advised by the American Medical Association that measures be taken by the various school authorities and boards of education, boards of health, and if possible, state legislators, to secure examinations of the eyes and ears of all school children in this country, with a view to the suitable treatment for the relief of the opthalmologic and otologic imperfections.

In accordance with this resolution Prof. Geo. L. Leslie, of the Los Angeles High School, has prepared the following leaflet for the use of the teachers of Los Angeles:

Los Angeles City Public Schools,
October, 1903.

SCHOOL HYGIENE LEAFLET.—EYE-SIGHT OF PUPILS.

THE EYE—NORMAL ACTION, DEFECTS, TESTS, HYGIENE.

"The average person knows little about his eyes. Perhaps he does not need to know much about them, but he should know at least this much. He should understand the action of the eyes; what eye defects are and what they mean. Knowing this, he is guarded against serious eye dangers."

THE NORMAL EYE.—In the normal eye rays of light from distant objects are brought to a focus on the retina without action of the muscles of accommodation. The focal length of the lens equals the axis of the eyeball. The eye is at rest when looking at distant objects.

Without *change of the lens* the focus of rays of light from near objects is behind the retina. That the image be sharply focused upon the retina, the lens must become more convex.

The lens continually changes its convexity as the eye looks at far and near objects.

The normal eye maintains such change without fatigue.

The eye in infancy is an undeveloped eye composed of growing tissues: the flat eye, underfocused. It is not adapted for *near work*. Development proceeds at an *uncertain rate*. The developed form of the eye precedes the full growth of the body by only a few years.

The relation of the nervous mechanism of vision to other nerve centers is so vital and close that the observance of proper hygienic condition of the eyes is most important to the general health and development of children and to the working ability of adults.

ACCOMMODATION.—In principle the eye is an optical instrument like the photographic camera. They differ in this: In the camera the convexity of the lens does not change. For objects at different distances the ground glass of the camera changes its distance from the lens.

In the eye the *distance* from the lens to the retina remains unchanged. The lens continually changes its convexity as we look at objects at different distances. The change in the convexity of the lens (accommodation) is brought about by the ciliary muscle and suspensory ligament. The lens is held in place by the suspensory ligament, the tension of which is controlled by the ciliary muscle. By the contraction of the muscle the ligament relaxes and the lens, by reason of its inherent elasticity, bulges forward and becomes more convex.

When the lens is at its flattest, it is said to be accommodated for distance vision. When the lens is at its greatest convexity, it is said to be accommodated for the *near point*.

In children the power of accommodation is remarkable. The near point is about three inches from the eyes. At ten years the near point commences steadily to recede, but holds during adult life, to the age of forty-five, at from twelve to fourteen inches.

Reading, writing and all near work are effected by muscular exertion causing an increased convexity of the lens.

DEFECTS—(1) **Hyperopia** (far-sightedness): The flat or undeveloped eye.

The axis of the eye is too short.

Rays of light from distant objects come to a focus behind the retina. If the eye is at rest the images, even of distant objects, are blurred.

The eye is never at rest during waking hours. Continued eye strain exists.

Where hyperopia is marked, by reason of the short axis of the eye, the face shows a want of relief.

Accommodation is strong and distant vision may be maintained without apparent fatigue. Pupils see board-work well.

Near vision, however, gives rise to fatigue.

Children read well at the beginning of a paragraph, but blunder toward the end. They may seem inattentive. Pupils with this defect tend to exhibit an unusual amount of blinking and winking.

Headaches, redness and soreness of the lids, inflammation of the eyes often exists.

This continued eye strain reduces the circulation, diminishes the nutrition, and thus takes away the energy which would otherwise go to aid in the normal development of the eye and in the doing of useful work.

(2) **Myopia** (near-sightedness): The elongated eye.

The axis of the eye is too long.

Rays of light from distant objects come to a focus before they reach the retina. A short-sighted person sees clearly at a definite distance; it may be a few feet or only a few inches. Everything beyond this point is hazy and ill-defined.

It is by far the most important condition of the eyes to look after, because the school work is more or less responsible for it. It is a condition very largely induced by the *misuse* of *eyes* during the *period of growth*.

A near-sighted child reads well from the book, but does not see the board-work well. He may make all sorts of awkward mistakes. It is most common between the ages of ten and fourteen.

That which is to be particularly avoided is the employment of the eyes at *fine work* at *short distance*. The continued and almost continual convergence of the eyes of a near-sighted person in time gradually elongates the eyeball. This increase in the length of the axis necessitates that all work be brought a little nearer than before, and thus myopia increases, and continues to increase. This continual eye strain reduces the circulation and consequently the nutrition. Where myopia is at all marked, serious and far-reaching consequences result in middle age and later life.

The remedy is the wearing of proper glasses, relieving the eye strain and giving the eyes an opportunity to *normally develop*.

Children and older persons who are near-sighted usually stoop and become round shouldered from their habit of poring over their work. This stooping at near work tends to produce congestion of the eyes.

Near-sighted persons usually show a prominence of the eyeball, but not always. The forehead shows wrinkles or furrows. Near-sighted eyes are *weak eyes*

of poor resistance and in a majority of cases continually giving trouble.

(3) **Astigmatism:** In astigmatism the eyeball is not spherical. The eyeball has a greater curvature in one direction than in some other, usually at or near the vertical and horizontal meridians. Because of this unequal curvature the focus may be either in front or behind the retina or both, but by different amounts. Marked cases of astigmatism give rise to much trouble, but nearly all eyes are slightly astigmatic, and the eye overcomes minor defects without trouble.

(4) **Muscular Imbalance:** The eyeball is moved by six muscles. The superior, inferior, internal and external recti and the superior and inferior obliques. When these muscles are rightly balanced the *visual axes* of the two eyes meet at the point of observation. When muscular imbalance exists this is not true without eye strain. The results of eye strain due to such unbalanced condition of the muscles are severe and far-reaching in their effects on the general health.

The cause of muscle deviations is usually some refractive error. The wearing of properly fitted glasses is the first thing to be done.

(a) When the internal recti are not sufficiently strong the eyes tend to turn outward—exophoria.

(b) When the external recti are not sufficiently strong the eyes tend to turn inward—esophoria.

(c) In vertical deviations, the eyes do not cooperate in upward and downward movements by reason of insufficiency of the superior or inferior recti muscles.

Tests.—(1) General.

Find out whether there are symptoms of eye trouble, headaches, watering of the eyes, red or swollen lids, fatigue in reading, reading with the book too close to the eyes, trouble in reading work at the board, strained look characteristic of weak eyes; eyes too prominent or eyes seemingly set too far back in the sockets; wrinkles or furrows on the forehead; general poor health.

(2) Snellen's Test Types.

(a) Hang the card in a good light on a level with the child's eyes.

(b) Test one eye at a time, keeping the other eye open and properly covered. (Place a piece of cardboard in front of the eye). Do not allow the child to press or touch the covered eye with the hand. It is customary to test the right eye first.

(c) Have the child take a seat twenty feet from the card. Ask him to read the rows of letters on the card, commencing at the top. Note the lowest line read correctly. If the child cannot read let him paint or draw the letters which he sees clearly.

(d) Write the record of the child's vision in the school register with a *visual fraction* 20/20 if the vision is normal.

The visual fraction—$d/D = \frac{\text{Distance from the chart.}}{\text{Type read.}}$

The numerator is the distance of normal vision for the type marked 20 feet.

The denominator is the distance of normal vision for the type read.

If the pupil reads the type marked 20 feet at 20 feet distance, the visual fraction is 20/20.

If he reads the type marked 30 feet at 20 feet distance the visual fraction is 20/30. The vision is poor, for he should read that type at 30 feet distance. Any fraction less than 20/30 indicates defective vision.

Normal Vision.—If the child reads all the letters or more than is expected, his eyes are probably in good condition. His visual fraction is 20/20.

Note: The child may be far-sighted and astigmatic to a considerable extent and still seem to have the normal vision. The accommodation of children is so strong that they readily overcome for a time a small or even medium amount of Hyperopia (far-sightedness). To detect Hyperopia where the vision seems to be normal:

Hold before the eye a one-half diopter convex lens. If the pupil sees *as well* with the lens as without it (not necessarily better) he is far-sighted. In testing the eye without the lens the defect was hidden by strong accommodation. If the lens *dims* his vision the eye *is* normal. Neithsr the normal eye nor the near-sighted eye will accept *any convex lens* for *distance*.

If no lens be at hand then the child's health and his behavior with regard to his work are the only guides at the command of the teacher. Such pupils require most careful consideration. If at any time, there is reason to believe there is trouble with the eyes, a good oculist should be consulted at the earliest moment

Defective Vision—The pupil does not readily reac the lines indicated for normal vision. His visual fraction is 20/30, 20/40 etc., or he may be unable to read the types at all

Myopia—Bring the pupil nearer to the chart. If at some definite distance the letters stand out clear and sharp, are easily read without special effort, then the child is near-sighted, except where there is *spasm* of the *ciliary muscle*.

A child markedly far-sighted may have undergone so much strain of the ciliary muscle that *spasm* of the muscle occurs at times. In the endeavor the eye makes to accommodate itself for near objects the muscles eventually refuse to relax. Under such circumstances a far-sighted eye may appear to be near-sighted.

Hyperopia—If upon approaching the chart no distance is found at which the types stand out clear and sharp and are easily read for any length of time, then the pupil is far-sighted (except in case of spasm of the ciliary muscle).

A far-sighted person upon coming nearer the chart may see the letters plainer by reason of nearness, but the types will not stand out clear and sharp and remain so for any length of time. When nearer the chart the increased intensity of light may momentarily stimulate his accommodation so that for a moment the types will seem plain, but they will not remain.

In distinguishing between near and far-sighted eyes it is well to remember that the near point for near-sighted children is much nearer than in the case of those far-sighted.

The correction for myopia and hyperopia with proper glasses cannot be too strongly emphasized. Glasses give the eyes a chance to *develop normally*. Near-sighted eyes will only get worse if left to themselves. Again, the cause of muscular imbalance is usually some refractive error and the wearing of proper glasses relieves and prevents muscular trouble. Consult a good oculist at the earliest moment. It may not be amiss to add a word of explanation with reference to the test types.

It has been determined that the smallest retinal image perceived by the most sensitive part of the retina corresponds to a visual angle of five minutes (5′). The test types are so constructed that every letter at its proper distance subtends an angle of five minutes. No. 20 type at 20 feet, and 30 type at 30 feet, etc.

(To be continued next month.)

An International Congress of School Hygiene will be held at Nuremberg, Germany, on April 4-9, 1904. All persons interested in this subject are eligible to membership, after approval by the local committee. There will be ten sections. The American members of the committee are President Nicholas Murray Butler of Columbia University, Professor W. T. Porter of the Harvard Medical School, and Professor John A. Bergström of the University of Indiana. —*Science.*

PUBLICATIONS.

International Clinics; Vol. III, 13th Series. With five colored plates, five plates, and thirteen figures in the text. The third volume of the series contains a collection of six papers on Diseases of the Gall-Bladder and Gall-Ducts, in addition to the general matter usually presented in these volumes. John H. Musser treats of the medical aspects, R. D. Rudolph of the causation, symptoms and diagnosis, Charles G. Stockton writes of the diagnosis and medical treatment, F Parkes Weber deals with biliary cirrhosis of the liver, F. Lejars' contribution concerns the indications for surgical intervention, and John B. Deaver writes of the surgery and post-operative treatment. The papers make an excellent treatise on the subject. Additional papers are on the Treatment of Pneumonia, by David W. Finlay; of Gastric Cancer, by Albert Robin; Carbonic Acid Treatment in Rectal Diseases, by Achilles Rose; of Typhoid, by A. Chantmesse. Other papers are on the following subjects: Malarial Infection, Types of Pneumonia, Respiratory Disorder Causing Death, Leukemia, intermediate in type; Myocardial Damage in Rheumatic Fever, Cocaine Anesthesia, General Anesthesia, Asepsis and Antisepsis, Gastrostomy, Intrascrotal Tumors, and the Modern Treatment of Varicose Veins. Philadelphia: J. B. Lippincott Company.

Decent Advertising—It is a pleasure to read the announcement of the *Journal of the Kansas Medical Society* that in future it intends to abide strictly by the rule of accepting only decent advertising and of publishing no reading notices in its reading pages. Slowly but surely the tide is turning. We have simply been deluged with the flood of vile and filthy nostrums, and doubtless thousands of lives have been sacrificed to the conscienceless greed of the man who will start a so-called medical journal, operate it for revenue only, puff and laud any old thing that has cash to back it, thus prostituting his profession and debauching the minds of many unfortunate ones who read his filthy sheet and do not know that he is paid for printing his vile lies—that his published utterances bear the hall mark of blood money upon them. If the journals of all the state societies will adopt this policy of decency, they can soon force the big, and even the biggest, journals to become reputable in their advertising pages.

Transactions of the Medical Association of Georgia, Fifty-fourth Annual Session, 1903. Some of the papers presented in this volume are Post-operative Treatment Appendicitis, Hydrotherapy in Dis. of the Digestive System, Retinitis Albuminurica, Carcinoma of the Cervix, Abdominal Surgery in private Residence, Puerperal Insanity, Smallpox, Osteomyelitis, Stricture Anterior Inertia, Hemophilia, Internal Strabismus, Multiple Fibroid with Pregnancy, Bloodless Operation for Hemorrhoids, General Diseases in Relation to the Eye, Spinal Curvature, Gastroptosis, New Silver Salts, Vaginal Route, Unilateral Sweating, Summer Complaint, X-Ray Treatment of Acne, X-Ray Treatment of Tabes, Criminal Kindness, Uncinariasis in Southern States, What is Meant by "Regulars" in the Code of Ethics, Remote Effects of Gonorrhoea in the Female, An Unclassified Fever of the South.

Transactions of the Iowa State Medical Society, Fifty-Second Annual Session, 1903. (No Table of Contents, and a very unsatisfactory Index; otherwise a satisfactory volume. Why in the world do you not publish a journal, instead of this archaic volume of "Transactions"?) Contains papers on the following subjects: Diseases Fallopian Tubes; Retrodisplacements Uterus; Radical vs. Palliative Measures in Gynecology; Extra-Uterin Pregnancy; Gyn. Neuroses; Medico-Legal Phases Insanity; Relation Childbearing to Insanity; Alcoholism; Traumatic Neuroses; Epilepsy; Preparation for Cataract Operation; Medical Treatment Chron. Otorrhoea; Radical Operation; Normal Labor; Puerperal Sepsis, Forceps; State Bacteriologic Examinations; Laboratory in Public Health Work; Disinfection in Office of General Practitioner; Dif. Diagnosis Gastric Ulcer and Gall Stones; Surgery Gall-Bladder; Systemic Infection from Gonorrhoea; Functional Albuminuria; Parenchymatous Nephritis; Contracted Kidney; Nephrolithiasis; Heart Affections; Sounds of the Body.

Transactions of the New Hampshire Medical Society, at the One Hundred and Twelfth Anniversary, held at Concord, May 21 and 22, 1903. The volume contains, amongst other papers, Obscure Fractures Near Joints, New Operation for Spina Bifida, Vaccination, Exaphthalmic Goitre, Typhoid Fever, Passage of Renal Calculus, Pleurisy With Effusion, Acetanilid Habit, On the Extensive Use of Proprietary Mixtures, Maternal Impressions, Eclampia, Quarantine in Diphtheria, are noted in the volume at hand.

Initial Publication, Again. "*The California State Journal of Medicine* is nothing if not plain spoken. Fortunately its editor is a man of high morals and the JOURNAL is kept to the high standard which he advocates. It appears to us that he is a little too exacting when he insists that all papers read at the annual meeting of the State Society should first appear in the JOURNAL of the Society. The utmost freedom has been given to our members in this matter and no dissatisfaction results. *It is probably true, however, that articles read at the annual meetings will obtain a larger number of readers if printed in the State Journal than if printed elsewhere.*"—*Illinois Medical Journal.*

The reasons for desiring initial or simultaneous publication of papers are numerous. A few of them are: 1st, The JOURNAL desires to print medical *news* not reprints. 2d, It is the record or transactions of the State Society meetings, and as such should contain all papers presented at the meetings. 3d, We believe our own members are more interested in the papers of their associates than are strangers. 4th, The *Illinois Journal* has expressed our sentiment when it says, "It is probably true that articles read at annual meetings will obtain a larger number of readers if printed in the State Journal." 5th, It is very easy to arrange for simultaneous publication, when that is desired. As for "plain speaking"—well, perhaps that is true!

The Animal Parasite Supposed to be the Cause of Yellow Fever. Correspondence relative to the investigations into the subject, and the very material aid rendered the government commission by Mr. J. C. Smith, of New Orleans. Published in *Science,* Oct. 23d, 1903. The correspondence presented shows at a glance that Mr. Smith was used as fully as possibly by the commission, and then very little credit given him for his aid. It is a shame that scientific men cannot be a little—just a little—more broad-minded and less jealous.

Tuberculosis.—Dr. F. M. Pottenger of Los Angeles considers that tuberculosis is the most frequent of fatal diseases and gives tables showing the mortality in different countries. While we have been obliged to discard heredity as a common cause, he thinks we have gone too much to the other extreme and neglected the question of predisposition. Childhood is a period that needs our most earnest atten-

tion, and while we must recognize the possibilities of heredity, most of the trouble comes from environment. Our hope as to the future prophylaxis of tuberculosis largely depends on our attention to this point. Overcrowding is one of the most active causes in rendering the environment unhealthy, and the part played by acute infectious disease, especially in childhood, deserves earnest consideration. He also cautions against over-exercise and overtraining as a possible cause.—*Medicine Abs. J.A. M.A.*

A Study of Immunity; Earlich's Side-Chain Theory. F. M. Pottenger, Los Angeles. Read before the Southern California Medical Society. Published in the *Medical News*, Nov. 7th, 1903. Discusses the general subject, theories, etc., and believes that great advancement in sera may be expected in the near future.

Leprosy in Hawaiian Islands. Dr. Augustin A. Crane, in the *Yale Medical Journal*, writes on this subject and makes some very interesting statements. Dr. Crane was for three years Government Physician in the leprous vicinity and studied the disease very carefully. Dr. Sajous' definition of leprosy is: "Leprosy is a chronic disease closely allied to tuberculosis, acquired by innoculation with Hansen's bacillus Lepre, but only while the system is susceptible to infection through vital adynamia, inherited or acquired." This definition Dr. Crane says agrees absolutely with his observations in Hawaii. The history of various attempts to have the disease investigated by eminent foreigners is interesting and concise, and the facts as observed by the writer make a valuable addition to the literature on this subject. "Of the 874 lepers confined on December 1st, 1902, 794 were Hawaiians, 39 Chinese, 13 Portuguese, 7 Germans, 5 Japanese, and 4 Americans. Of these 533 were males and 337 females. This proportion of about two to one holds good all over the world."

Relative to Maternity Hospitals, Etc.—Chapter CCXXXIX of the Statutes of California of 1903 provides that any person who, without first having obtained a license in writing from the county health officers, conducts any maternity hospital, or who conducts any institution or other place for the reception or care of children, or who keeps at any such place any child under the age of 12 not his relative, apprentice or ward, without legal commitment; or who violates the provisions of this act, is guilty of a misdemeanor. Every such license must specify the name and residence of the person so undertaking the care of such females or children and the location of the institution and the number of females or children allowed to be received. Licenses shall be revocable for any violation of the provisions of the act, or in any case where, in the opinion of the licensing body, such place is being conducted without proper regard for the health, comfort or morality of the inmates thereof, or without due regard for proper sanitation or hygiene. Every person so licensed must keep a register of the names and addresses of all such females, the names and ages of all such children and of all children born on the premises, and the names and residences of their parents, so far as known, and the time of the reception and discharge of such children and the reasons therefor, and also the name and age of every child who is adopted or taken away, together with the name and residence of the person taking away the child; and within forty-eight hours shall cause a correct copy of the register relating to a child who is taken out to be sent to the county board of health or county health officer, as the case may be. It shall be lawful for all health officers, at all reasonable times, to enter and inspect the premises, to inspect the license and the register and to see and visit the inmates.—*Jour. A. M. A.*

The San Pedro, Los Angeles and Salt Lake Railroad has added a hospital car to its equipment, fully equipped with medical and surgical supplies, and provided with an operating room, dispensary, private rooms and a ward.

Licutenant-Colonel Henry S. Kilbourne, Chief Surgeon of the Department of California; Major William Stephenson, Surgeon, and Captain James M. Kennedy, Assistant Surgeon, United States Army, have been appointed a special examining board to meet at the Army General Hospital, Presidio, for the examination of such officers of the medical department as may be ordered before it to determine their fitness for promotion.

Mr. J. Ogden Armour, of Chicago, has endowed with $100,000 a chair of orthopedic surgery in St. Joseph's Hospital, Omaha, Nebraska.

PERSONALS.

Mr. W. W. Astor has contributed $100,000 to the British Cancer Research Fund.

Dr. Louis P. Dorais, formerly 1101 Van Ness avenue, San Francisco, has removed to Eureka.

Dr. William T. Barry has located in Santa Barbara, having removed from Salinas, Monterey county.

Dr. A. P. O'Brien of San Francisco has been appointed Surgeon of the First Division, N. G. C., with rank of Colonel.

Dr. George K. Herzog of San Francisco was married on October 7th to Miss Rae Cohn, Rabbi Myers performing the ceremony.

Dr. James F. Smith and Miss Adele Caglieri were married November 5th at St. Ignatius Church, San Francisco, by Father Frieden.

Dr. Francis Frederick Knorp and Miss Elsie Moraghan were married October 28th at St. Mary's Cathedral, San Francisco, by Father Coyle.

Professor C. S. Sherrington, of the University of Liverpool, gave the address at the opening of the new medical buildings of the University of Toronto. Professor Sherrington will visit some of the medical centers of the United States before returning to England.

Physicians throughout the country will be surprised to learn that Dr. Frank Billings of Chicago recently underwent an operation for infected gall-bladder, and sorry to know that he has been much run down on account of the pressure under which he has been working for several years. Dr. Billings made a good recovery from the recent operation, and his friends of the coast wish him speedy and entire restoration to health.

Recent removals of physicians in San Francisco: J. Green, from 1200 Mason to 1076 Washington; B. F. Fleming, from 2212 Webster to 2103 Pine; G. W. Fuller, from 2306 California to 2101 Webster; G. E. Ebright, from 590 Sutter to 606 Sutter; R. W. Baum, from 139 Post to 369 Sutter; A. F. Sampson, from 1220 Sutter to 751 Sutter; J. I. Manson, to 1163 Van Ness avenue; H. J. Waterman, to Berkeley; William P. Harvey, from 569 Haight to 751 Sutter; W. C. Stratton, from 2255 Mission to Parrott Building; C. M. Richter, from 640 Geary to 391 Sutter.

DEATHS.

Dr. Alphonse J. Mervy died November 17th at San Diego, where he had gone three months ago from San Francisco on account of failing health. Dr. Mervy graduated from the Medical College of the Pacific in 1876, and was licensed the same year.

Dr. Michael Heinimann, father of Dr. J. M. Heinimann of Fruitvale, died on Thanksgiving day at the age of 85.

MEDICAL SOCIETY MEETINGS.

Alameda County.

The Alameda County Medical Society held its regular monthly meeting Tuesday evening, November 10th, Dr. Hamlin presiding.

Dr. T. A. Williams read the paper of the evening, the subject being "Gastric Analysis in Hyperchlorhydria.

The doctor stated that Hyperchlorhydria was one of the functional diseases of the stomach, and that it is only of recent years that these functional diseases have been studied and placed on an exact scientific basis. After reviewing the etiology, symptomatology, and diagnosis of this neurosis, emphasizing the importance of a chemical analysis of the stomach contents after a test meal had been given, he described the technique of obtaining and analyzing the contents of the stomach.

During the executive session a motion, expressing the following resolution, was made by Dr. F. L. Adams and unanimously carried:

Resolved, That the Alameda County Medical Association hereby endorses the position and action of the Santa Clara County Medical Society, taken relative to the suit against the State Board of Examiners, and hereby pledges the influence and support of this society, individually and collectively, to the State Board of Examiners; endorses their action and appreciates the good they have done and are doing, and insists that there shall be no tampering with the present medical law of this State; and be it further

Resolved, That this County Medical Association urges and calls upon the Trustees of the Medical Society of the State of California to use such funds as may be at their disposal, to employ counsel and to do everything they can to sustain and defend the position in which the State Board of Examiners finds itself at the present juncture.

Committee on Publication:
J. M. SHANNON,
A. S. KELLY.

A. H. PRATT, Secretary.

Kings County.

Kings, Merced, Ventura Counties Organized October 31st, 1903.

In response to the invitation sent out by the Trustees, Drs. Duncan, Felton, Dixon, Toner, Holmes, Miller, McCubbin and Charles met Drs. Geo. A. Hare and Philip Mills Jones of the Board of Trustees of the State Society at the Artesia Hotel, Hanford, on the night of October 31st, and organized the Kings County Medical Society. The meeting was called to order by Dr. Jones, and on motion Dr. Duncan was made temporary chairman and Dr. Felton temporary secretary. Dr. Jones presented the constitution and by-laws recommended for county societies by the State Society, and on motion they were adopted as read. The second Monday in each month was appointed the time for regular meetings, the hour and place to be determined from time to time. The following officers were then elected to serve until the annual meeting, in December: President, N. P. Duncan; Vice-president, Wm. H. Miller; Secretary, L. E. Felton. On motion, the roster was left open for charter members until January 31st, 1904. On motion the Secretary was instructed to write to the State Society asking for affiliation. On motion it was decided to meet the second Monday in November at the office of the President, Dr. Duncan. Drs. Scott, Moore and Gregory could not be present, but had requested that their names be placed on the roll of members. The meeting then adjourned, after Dr. Hare had explained the full meaning, purpose and objects of organization, and the duties attaching to membership in the organized society of the State.

It is a great pleasure to the Trustees to congratulate the physicians of Kings county upon the organization of their society, and especially so to note that out of a total of twelve physicians in the county, eleven have placed their names upon the roll of members. We earnestly hope that effort will be made to secure the one remaining without the fold to also join in the organization, and thus have at least one county in the state in which every eligible physician is a member. We would once more state the fact which you have doubtless already appreciated, that the comparatively small amount which your society will pay to the State Society brings you in a goodly return. You will receive the STATE JOURNAL monthly and the Register each year—free. The JOURNAL will keep you posted as to the doings of your own as well as all other county societies, and the State Society, and will give you much material that you will find of benefit. If your meetings are reported to the JOURNAL they will be regularly and promptly printed each month and thus your members will secure, free, a complete set of the transactions of your own society. We ask you to remember that the JOURNAL is your own property and will be administered solely in the interests of your members and the members of all county societies. We trust that you may one and all appreciate the great benefits to be derived from the spirit of harmony and closer intercourse which a medical society induces, and that you will strive to make the Kings County Medical Society the strongest component society in the state organization.

Merced County.

Organized November 12th, 1903.

In response to an invitation sent out by Dr. E. S. O'Brien, the following physicians of Merced County met at the Masonic Hall, Merced, on the afternoon of the 12th of November, and proceeded to organize the Merced County Medical Society: Drs. De Loss, Lilley, O'Brien, Rucker, Smith and Whitlock. Dr. Philip Mills Jones, a member of the Board of Trustees of the State Society, was present on invitation of the resident physicians, to aid them in the matter of organization. In addition to those present, Drs. Wade and McClelland had signified a desire to join in the organization, but could not attend the meeting. Dr. O'Brien was elected temporary chairman and Dr. Lilley temporary secretary. The constitution and by-laws recommended for County Societies by the A. M. A., and the Trustees of the State Society, was then read and on motion it was decided to organize a county society under the title of the Merced County Medical Society, and to adopt the constitution and by-laws as read. On motion, the following officers were elected under the constitution to serve until the annual meeting in December, 1904: President, E. S. O'Brien; Vice-President, H. N. Rucker; Secretary, W. E. Lilley; Treasurer, H. De Loss; Censor, for three years, A. M. Smith; for two years, W. A. Whitlock. On motion, election of censor for one year was postponed till the next meeting in December. On motion, the election of delegate and alternate to the State Society was postponed till the March meeting. On motion, the initiation fee was fixed at $5.00, and the annual dues at $2.00. On motion, the secretary was instructed to write to the secretary of the State Society enclosing copy of the constitution and by-laws and request that the society be accepted in affiliation with the State Society. On motion, the secretary was instructed to order 100 copies of the constitution and by-laws from the A. M. A. On motion, the first Thursday of each month, 8 p. m., was made the time for regular monthly meetings of the society. On motion, it was decided that the next meeting be held at the office of Dr. H. N. Rucker. On motion,

the society adjourned to meet at 6 p. m., at a dinner provided for the trustee who had been invited to attend the meeting.

Another new county society is thus launched, and very successfully and harmoniously launched. The Board of Trustees congratulate the physicians of Merced County upon their organization, and upon the peace and harmony which prevails in their county in medical circles. It earnestly hopes that this harmony may be continued, fostered and strengthened by the society, and that its influence for good and for the best of professional interests and for public health may ever be exerted by it.

Orange County.

The Orange County Medical Association held its regular monthly meeting November 3d. Dr. J. W. Jones, of Orange, read a very able and interesting paper on "Constipation and Some of Its Effects."

The library committee reported about 300 volumes already contributed to the medical library.

At the annual meeting of the Santa Ana Hospital Association the board of managers was re-elected and Doctors John L. Dyer was elected president; Howard S. Gordon, vice-president; James P. Boyd, treasurer, and Charles D. Ball, secretary. The capital stock of the association was increased from $10,000 to $25,000.

H. S. GORDON, Secretary.

Riverside County.

The Riverside County Medical Society met at Dr. Clarke's residence on Monday evening, November 9th. Present, Drs. Kendall, Parker, Clarke, Girdlestone, Van Zwalenberg, King, Dickson, Baird, Martin and Roblee.

The minutes of previous meeting were read and approved.

After much discussion it was voted not to ask the members of the other schools of practice to unite with us in adopting a fee bill. The Secretary was ordered to have the constitution, by-laws, fee bill and roster of members published at the expense of the society in pamphlet form.

Dr. Martin reported a case for advice as to whether an abortion would be justifiable in a patient who had suffered from repeated attacks of appendicitis. The pregnancy is of two months duration; there is much nausea, pain at the site of the appendix, loss in weight and general malaise. The patient has refused operation for the appendicitis. The concensus of opinion was that the appendix should be operated upon and the pregnancy should not be interfered with.

Dr. Dickson invited the society to meet with him next month.

Dr. Clarke served delicious refreshments. A vote of thanks was tendered our hostess and the meeting adjourned.

W. W. ROBLEE, Secretary.

San Bernardino County.

The San Bernardino County Medical Society held its regular monthly meeting Wednesday, October 14th, in the County Court House. In the absence of President Booth the meeting was presided over by Dr. Hurley. Papers were prepared by Drs. Charles Harris, J. J. Myers and J. A. Champion. Several applications for membership were received.

J. H. MEYER, Secretary.

San Francisco County.

Meeting called to order at 8:35 p. m., November 10, President Kengla in the chair. The minutes of the previous meeting were read and approved by the society. Propositions for membership: Drs. Alfred Morris, Martha Thornvick, Frank Maine, Alva Hewlett.

Dr. Winterberg exhibited case of resection of both bones of the right forearm, made necessary by faulty union. He emphasized a few of the general rules regarding treatment of fractures.

Dr. W. I. Terry showed case of total removal of larynx; the patient using an artificial larynx, invented by Gluck, permitting him to speak fairly distinctly.

Dr. H. P. Hill stated that he was present at an operation for total removal of the larynx, but in that case no artificial larynx was used.

"Diagnosis of Unilateral Kidney Diseases", by Drs. Krotoszyner and Willard, was read by Dr. Krotoszyner. Enumeration of a number of cases, proving great value of catheterization of ureters and the definite aid obtained by the use of kryoscopy and the phloridzin test.

Dr. Grosse congratulated Dr. Krotoszyner on his paper, as it embodied and verified all the latest and best work done by urological specialists, as well as upon the fact of being the pioneer in this work on the coast. He agreed, in the main, with the conclusions of the speaker, but differed with the writer in believing that though catheterization of ureters is very valuable as a diagnostic factor, it is not nearly so simple a procedure as described this evening, nor as innocent a one. Caspar read his first paper on catheterization of ureters in the Berlin Medical Society a number of years ago, and in the discussion that ensued, no less authority than James Israel warned against the use of this measure as a routine procedure, as a healthy kidney could thereby be infected; and to prove this assertion he demonstrated several pathological specimens, germane to the question. Dr. Grosse wished to emphasize the fact that, although Dr. Krotoszyner has, as yet, reported no ill-effects from catheterization, that these will certainly materialize sooner or later. He wished to warn against catheterization of ureters in cases of co-existing urethritis and cystitis. Kryoscopy, which though not very accurate is certainly an aid towards solving the functional capacity of the kidney, and, for that reason, as well as Caspar's phloridzin test, may be considered corroborative evidence.

Dr. J. Henry Barbat—With regard to the different catheterizing instruments, I use the Bradford Lewis cystoscope. I am rather in favor of this instrument, because it gives a direct view of the interior of the bladder. Regarding catheterizing the ureters, either in the male or female, it is an error to attempt the procedure with the patient in the dorsal position; the knee chest position will give much better results and is a much easier position for the surgeon.

Dr. Levin—Regarding the danger of injury to the kidneys, I have heard Israel mention these failures without pointing to the previous damage done to the kidneys through faulty catheterization. To this he attributes the failures. There is never any necessity to insert the catheter so deeply as to reach the substance of the kidney. This I have heard from Israel personally.

Dr. Quinan wished to know if Beekman's instrument was used in the kryoscopic tests and if examinations were made in triplicate. He called Dr. Krotoszyner's attention to the fact that the instrument and the procedure are notoriously faulty and inaccurate.

Dr. Dudley Tait found, upon his recent European trip, that the enthusiasm for cryoscopy noted at the 1900 International Congress, had almost completely subsided. No one, with the exception of Casper and

Kummel, considered cryoscopy a method of precision. Many factors aside from renal insufficiency may influence the freezing point of blood (Albarran, Bernard, Hartmann, Israel). Dominici's experiments prove that the formation of sugar may occur in other parts than the kidney, thus explaining the variable results from the phloridzin test. He made a comparison between ureteral catheterization and segregation of the urines, showing in detail the numerous sources of error, the difficulties to be surmounted, the necessity for safe and simple methods of diagnosis. The elements of precision attributed to ureteral catheterization was contested and numerous arguments given. Operative records in services using segregation (Hartmann, Tuffier, Legueu, Mayo) were frequently better than in those services using ureteral catheterization (Kelly, Kummel, Casper). Albarran's successor, at the Necker Hospital, and the Mayo brothers, of Rochester, use segregation (Harris' and Cathelin's). The latter reported last May 48 consecutive nephrectomies without a single death.

Dr. Graves exhibited a urethral calculus recently removed from a female; diagnosis made with Kelly cystoscope and wax tipped catheter.

Dr. Rosenstirn—Methods, such as these, will not be abandoned but probably improved. The removal of a kidney, or in fact, all kidney surgery, is of such importance that any method which will throw any new light on the case is anxiously sought for by surgeons. A report of 400 kryoscopic examinations by Kummel and the conclusions drawn therefrom show that even if the method is not accurate it is a definite aid. A method, not spoken of this evening, is the method of Loewenhardt, Breslau, i. e., the measurement of the electrical conductivity of a fluid.

Dr. Krotoszyner—Catheterization has come to stay. Segregation will be used only in infantile bladders and bladders filled with opaque fluid, which does not clear after repeated irrigations. Kryoscopy is not very accurate but, when there is a very great difference between the two kidneys, it is of a good deal of significance. In nephrotomy it is of great use, as it indicates whether the other kidney will functionate sufficiently for several days.

Dr. Sanford Blum read a paper on "Streptococcus Diarrhea in San Francisco."

Dr. P. K. Brown—Dr. Blum seems unfamiliar with work recently done by Deval, Bassett and Bidder on the dysenteries occurring in the United States, and acute diarrhea of children. They found the bacillus first described by Shiga as causing acute tropical dysentery, is also the cause of the sporadic institutional dysenteries of this country. This bacillus is the cause of a very large proportion of summer diarrhea of children.

Dr. Ryfkogel—I would like to ask Dr. Blum whether he said that he found streptococci in pure culture, or it he isolated them. We know that the colon bacillus is found almost universally in the intestine and multiplies in diseased conditions.

Dr. Blum—I found the streptococci in one case in pure culture. I wish also to say that I said that intentionally for the reason that unless you find the streptococci in pure culture you cannot be sure it is the guilty organism.

Dr. W. U. Arnold, who was to demonstrate therapeutic electric light apparatus, was unable to do so on account of the accidental breaking of the lamp.

Annual report of Committee on Admissions: 64 members admitted; 6 yet before committee; none rejected.

Annual report of Treasurer: Receipts, $2113; disbursements, $2037.93; transferred to Trustees, $500; on hand, $212.18.

Annual report of Trustees: Including $500 from Treasurer and $225.38 interest, balance on deposit, $7236.98.

Auditors reported books and accounts correct.

Annual report of Executive Committee referred to aid given by President Kengla in arranging programs, and extended thanks to Drs. Kerr, Allen, Brown, Brunn, Jellinek, Goodfellow, Shiels, Kelly, Sherman, Reynolds, Perry, Johnson, Cooper, Terry, Kibbe, Morton, Grosse, Cohn, Power, Krotoszyner, Stapler, Huntington, Moffitt, Levison, Willard, Blum, Arnold and Winterberg, of the society, and to Dr. Sunberg, of Bagdad, for papers read before the society.

Annual report of Librarian showed 1316 visits to the library, average 110 per month; expense, $1050; recommended employment of a second assistant in order to keep the rooms open from 8 a. m. to 10 p. m.; also that additional room be provided.

Annual report of Secretary showed present membership of 405; loss of year, 23; gain of year, 74; membership, 1902, 354; net gain, 51; collected dues and fees, $2113; expenditures, $2037.93.

Dr. Philip Mills Jones presented the following notice:

"In accordance with Article IX of the Constitution, I beg to herewith file notice to the effect that at the next regular meeting of this society motion will be introduced appropriating the sum of $300 to be paid to the Medical Society of the State of California, as a contribution to the fund to be collected from component county societies for the defense of the suits against the Act entitled 'An Act to govern the practice of medicine in the State of California,' and against the Board of Medical Examiners as appointed under that Act."

On motion the Secretary was directed to cast a ballot as that of the society in favor of the election of the officers placed in nomination at the last meeting to serve for the ensuing year, there being no additional nominations presented.

President Kengla thereupon declared the election of the ticket nominated by the special committee, as printed in the November STATE JOURNAL, page 382, and after thanking the society for the honor it had conferred upon him, introduced the President-elect, Dr. J. Rosenstirn, who accepted the chair in a short address, saying he had no new policy to propose, but would endeavor to follow the excellent example of his predecessor.

On motion of Dr. Ebright, the thanks of the society were extended to the retiring officers for their services during the past year. Adjourned.

W. F. BARBAT, Secretary.

San Diego County.

At the regular meeting of the San Diego County Medical Society, November 6, Dr. Robert Armstrong delivered a lecture on the subject of "Affections of the Nervous System Among English-speaking Peoples." He said in part:

Speaking of diseases of the nervous system as including all serious disturbances of the normal balance of the functions of the nervous system, varying from the strain of temporary overwork to those extreme disturbances resulting in the many forms of insanity and crime, it is pretty generally held that there has been of late an increasing prevalence of what might very well be called "diseases of civilization." The rapid and radical changes that have been brought about in methods of production and living, by the practical application of science, co-operation, improved instruments, the substitution of "brain for brawn," machinery for muscle, in doing the world's work, could hardly fail to produce an increasing tendency to the many forms of nerve and brain affections, too well known to physicians to require detailed description.

When scientific methods and machinery are applied so as to supply the markets with only, say, 10 per cent of the manual labor required by the old methods, the class who own the capital invested, and the machinery, have increased means and power to indulge their whims and

passions, and the better-paid class of workmen are, of course, likely to be close imitators of the extravagant habits of the wealthy, with an increase of all the well-known results of high living and self-indulgence.

The class of workers who tend the highly specialized machines, whose work consists usually in performing some very simple manual operation, which is repeated throughout the work day or night, with unvarying monotony, are more or less rapidly reduced to the position of automatons, with nerves, brain and muscles cultivated only in one direction, but mentally and physically atrophied in every other respect. Competition of capital compels the employment of the cheapest available labor, and, as a matter of course, women and children must take the place of men in all the simpler processes of production, because they work cheaper. That the women are soon physically, morally and mentally wrecks goes without saying. Under such conditions children, perhaps, suffer less, often never knowing any better; dwarfed, stupid, imbecile, death comes, it is said, to these in an average of four or five years of factory life.

The English-speaking people of the world have probably suffered relatively more from these new conditions, because they have been foremost in applying the new methods. Other nations, however, are rapidly taking the same direction, and as there is necessarily a limit to the foreign markets and the lands, some remedy must be found or civilization itself must suffer disaster.

Science has been applied in production; let science be applied in the distribution of the results arising from harnessing the forces of nature.

The hours of monotonous factory work must somehow be reduced, so that all the able-bodied workers will share the work and the profits, so that the women may do their proper work in the family and the home, and the children be allowed to develop normally in schools.

Referring to matters which perhaps do not directly concern the profession of medicine, a most serious source of worry, overwork, and all that accompanies these, is to be found in English orthography, which requires two years more of most unsatisfactory school work in learning to read and write badly than is required to learn these branches perfectly in the schools of France, Spain, Italy and other European countries. The failure of fifty years of "spelling reform" has been named as conclusive proof that improvement of English spelling is impossible. But it surely cannot be true that a race, the foremost in applying science in all other practical directions, cannot do as well as its less enterprising neighbors in this most important direction.

It can now be demonstrated beyond successful question that it is possible to do even better. In the past all alphabets have been entirely arbitrary in their sign structure. In this, as in other practical affairs, there is not likely to be any permanent rest until the best, the highest, attainable economy is reached; and the best possible can be attained only by the application of scientific or natural principles. This conceded, obviously the first step should be to find some satisfactory principle of alphabetic development, to serve as a graphic foundation.

It has been suggested that the best conceivable, the most natural standard of graphic sign requirement may be found in the simple principle of analogy between written signs and spoken sounds. Since these are analogous in function, why not make them analogous in character, by modeling alphabetic signs so as to correspond as closely a possible with the sounds they represent, in character, and hence in simplicity, order, and in all that is desirable in written or printed expression?

Dr. Armstrong then exhibited charts showing a proposed system of graphic signs, which he claimed most closely followed the sound elements they respectively represented. He suggested that experts in phonetics could perfect the system, which upon general adoption would save at least two years in the teaching and learning of common print.

THOS. L. MAGEE, Secretary.

Santa Barbara County.

The Santa Barbara County Medical Society held its regular monthly meeting in the parlor of the Arlington Hotel, November 11th. The president, Dr. Charles Anderson, being absent, Dr. C. E. Vaughan presided; the following members answered to roll call, viz: Drs. Wm. H. Flint, C. S. Stoddard, J. W. Graham, W. B. Cunnane and C. E. Vaughan; visitors, Drs. Barry, Conrad and Morrey.

Dr. W. B. Cunnane reported a case of Laparotomy, the unusual conditions found and the excellent result following operation.

Dr. Wm. H. Flint commented upon the good effect of the adrenal gland preparations, strychnin and normal salt solution toward bringing about a reaction.

The paper of the evening, "Asepsis by a Country Physician," with special reference to "Its Practice in Obstetrics," was read by Dr. J. W. Graham.

Dr. David A. Conrad was elected to membership in the association.

W. B. CUNNANE, M. D., Secretary.

Santa Clara County.

The principal matter of interest at the meeting held in October was the presentation of a paper by Dr. Paul Sanford entitled "Neuralgia and Some of Its Clinical Features." (Paper enclosed herewith). The author cited clinical cases of trifacial and intercostal neuralgia.

Dr. H. J. B. Wright reported a case of ptomaine poisoning in which the autopsy revealed no lesion of the abdominal viscera other than indications of gastritis. He requested an expression of opinion and the experience of those present on the subject.

Drs. F. H. Paterson, Frasse, Curnow, Witter and Grissim replied and cited recent cases which had come under their own care.

At the stated meeting of the Santa Clara Medical Society, held November 18, Dr. F. H. Paterson read a paper entitled "The Value of a Medical Laboratory," which was well received and elicited considerable comment.

J. LAMBERT ASAY, Secretary.

Sonoma County.

The first meeting of the Sonoma County Medical Socicty was held on the evening of November 12 in Eagle's Hall, Santa Rosa, about thirty members being present. The interest manifested was very great and betokens a most brilliant future for the society.

The address of the President, Dr. Shearer, of Santa Rosa, was listened to with rapt attention by the confreres of that "grand old man," who interspersed his address with stories of his experiences in Georgia in '64, and referred to what the profession then knew of sepsis. He was most eloquent in his references to the great work in the cause of humanity, and was heartily cheered at the conclusion of his address. Dr. Shearer is still in the foremost ranks of our profession, ready to learn as a child, ready to impart knowledge as the sage that he is. The society voted thanks for the paper, which was deposited with the secretary.

The next paper was by Dr. George Ivancovich, of Petaluma, on "Typhoid Fever." He handled his subject exceedingly well, and at its close a friendly but spirited discussion followed: Dr. A. M. Thomson, of Sonoma, on treatment; Dr. W. J. Kerr, of Sebastopol, on the use of acetozone as an intestinal antiseptic (gr. xxx. to qt. H O and use O iv. per day): Dr. J. H. McCord, of Santa Rosa, on the especial care of the kidneys; he also used acetozone as an intestinal antiseptic; he thought medicine in intestinal hemorrhage of little value. Dr. J. W. Jesse referred to his management of many cases with the loss of but one patient. Dr. Browne, of Healdsburg, and Dr. Bonar, of Santa Rosa also discussed the subject, the latter claiming there is no food to be absolutely relied upon, but that each case presented a law unto itself; he recommended fruit juices and buttermilk. Dr. Coffman, of Healdsburg, advised careful study of each case. Dr. Meneray, of Santa Rosa, reported fifteen cases and outlined his treatment; he gives little medicine, but twice a day uses high and low enema of cold water salt solution; matter as presented was both interesting and instructive. Dr. J. W. Seawell, of Healdsburg, gave an instructive talk on bacillis typhosis, explaining the difference between it and ba-

cillus coli communis, suggesting that a serum antitoxin would soon be forthcoming that would stamp out the bacilli as effectually as does the diphtheritic serum stamp out the bacilli of Klebs-Loeffler. Dr. Barmore, of Santa Rosa, closed the discussion.

During a recess examination of bacillus typhosis was made with oil emersion lens brought to the meeting by Dr. Ivancovich.

Santa Rosa was chosen for the next meeting on December 10, and after discussion as to the eligibility of new members the meeting adjourned at 12:05.

It was once thought that we could not have a medical society in this county, but the meeting above reported demonstrates the fact of success and it was harmonious and enthusiastic.

G. W. MALLORY, Secretary.

Southern California Society.

The next meeting of the Southern California Medical Society will be held at Redlands December 2-3. The STATE JOURNAL has arranged to have the proceedings reported.

Ventura County.

Organized October 29th, 1903.

On the evening of the 29th of October, Drs. Love, Maulhardt, Stockwell, Dwire, Cunnane, Teubner and Broughton met the President of the State Society and Trustees Mattison Baird and Jones at the Rose Hotel, Ventura, and organized a county society, voting to affiliate with the State Society. Drs. Saeger, Hinckley and Huning, of Ventura county, could not be present at the meeting, but sent in their names with the request that they be enrolled as charter members. The local physicians had arranged for an excellent dinner to the delegation from the State Society, and after dinner the meeting was called to order by Dr. H. Bert. Ellis, President of the State Society, and Dr. J. H. Love was elected temporary chairman, with Dr. Maulhardt as secretary. Dr. Philip Mills Jones then presented the constitution and by-laws recommended by the American Medical Association and by the Trustees of the State Society, and explained the plan of organization in detail. Dr. Broughton moved that the county society be organized and that the constitution and by-laws as read be adopted; these motions were carried. It was then moved and carried that the roster be left open till the 31st of January, so that all physicians of the county who might desire to do so might become charter members without the payment of an initiation fee. The following officers were then elected, to serve until the annual meeting in December: President, J. H. Love; Vice-president, G. A. Broughton; Secretary and Treasurer, A. A. Maulhardt. A resolution asking for affiliation with the State Society was introduced and passed. The first Monday at 8 p. m. of each month was made the time for the regular monthly meetings. The society then adjourned.

Thus another County Medical Society is added to the list, and the Trustees congratulate the physicians of Ventura upon the fact accomplished. We sincerely trust that the Ventura County Medical Society will thrive and grow strong and be an important factor in medical affairs of Ventura county. There are a few physicians in the county who have not yet signified their intention to join the society, and we would urge upon the members to see to it that every one of these is fully informed of what has been done and is invited to connect himself with the County, and thus also with the State Society. Whether they are likely to be able to attend meetings or not, they should join, for they will then be part of the great organization, will be a potent factor in all things of public health in the State, and will receive the publications of the State Society free. As the reports of meetings are published in the STATE JOURNAL, all members will know what is going on whether they are present or not, and thus will be brought into closer touch, and kept in more intimate relations. The Trustees wish you every success.

California Academy of Medicine.

The regular meeting for October was called to order by the President, Dr. Montgomery, on the evening of the 23d. Dr. W. I. Terry exhibited a patient upon whom he performed complete extirpation of the larynx. The patient was presented to the Academy at the May meeting, at which time he exhibited a large epithelioma of the larynx, involving the vocal cords and the epiglottis. On May 7th he was operated upon, the tumor mass and the vocal cords being removed; subsequently more tumor masses appeared and he was again subjected to an operation, following which he was treated nine times by exposure to the X-rays. No improvement resulting, and the tumor mass increasing in size, a radical operation was decided upon and performed. A tube was inserted between the third and fourth tracheal rings and the anesthetic administered by its means without difficulty. The entire larynx was then removed, and the epiglottis was removed separately. There was very little hemorrhage; after the operation the respiration dropped to four per minute, due probably, as suggested by Dr. Terry, to the unusual amount of air entering the lungs after the removal of the obstruction which had maintained for some time preceding the operation. Two days after the operation he could drink water, and subsequently take soft food. Recovery was rapid and uneventful. He is now learning artificial articulation by means of a pitch pipe attached to a double tube, one end being inserted in the tracheal opening and the other held in the mouth. The present arrangement is temporary, but the patient has already learned the proper modulations of the pitch pipe and can make himself well understood. Dr. Terry thought the only mistake made was in refraining from performing the total extirpation at first.

Dr. Harry M. Sherman, who was to have reported a case of Marjolin's Ulcer, stated that he had not been able to have the necessary material sent to the place of meeting during the day and so would postpone that report until the next meeting, substituting for it, at the present meeting, the exhibiion of a specimen of spinal tuberculosis. Deformity was very marked; laminectomy had been performed in order to relieve the paralysis. Following the operation there was slight improvement in sensation and motion, the child being able to cross one leg over the other, and some control of the vesical sphincter was secured. This improvement was considered very remarkable when the spine was examined post mortem and the cord was seen to be compressed and atrophied to a mere thread, the antero-posterior diameter of the canal at the angle being only 3-4 mm. That sensation and motion, even though in limited degree, could be transmitted through this mere trace of cord was rather remarkable. Dr. Sherman spoke of the fact that abscesses could and did exist when unsuspected, and called attention to the presence of one in the specimen exhibited, which had not been suspected at any time. Some general discussion followed as to the exact form of the Babinski reflex, indicating sclerosis of the lateral columns.

Dr. H. C. Moffit read a paper on "Recurrent Vomiting in Children," based largely on the report of several cases encountered by him. The first patient was seen on August 22d, and was the 11-year-old child of parents giving a bad nervous history. The first sickness of the child was due to bad milk and occurred

when about 6 years of age. The patient was rachitic but not notably nervous. School life was very greatly interfered with by the attacks of vomiting, which occurred two or three times a month, generally due to some excitement or overdoing. During the attacks there was lateral headache; mucus and bile were ited, but no blood. Temperatures of 103°, 104° and 105° had been noted, and the skin was brown and itching during the attacks. No odor was noted. The urine, during the attacks, contained large amounts of indican and acetone, which were absent from the urine at other times. The second child had been unhealthy since birth; at the end of its first year it weighed but eight pounds. Attacks are similar to those of the first patient, but last from three to eight days. The bowels are always constipated, but the child shows no nervous temperament. The third patient had a negative history, and was a girl of three years. Attacks begin with great thirst and vomiting lasting from three to seven days. There is no fever, but there is always, during attacks, a heavy odor on the breath; no cause for the attacks can be ascertained. The diet is largely one of carbohydrates. The last attack was preceded by exposure to the sun, two days of fever and a temperature of 103° during the attack being noted. There was no thirst in this case, but the urine contained acetone and diacetic acid. An enema of sodium bicarbonate was given and the attack relieved in about a half hour, when the acetone disappeared from the urine. Dr. Moffit then referred to the cases reported by Edsol in the *American Journal Medical Science*, April. The symptoms in most cases are alike; the temperature may run from 103° to 107°; the skin becomes either yellow or brown; the bowels have no effect, and pain is generally absent. As these patients grow older they develop migraine, as a rule. Death may occur during or at the end of an attack, probably from exhaustion. As a rule there is a decidedly neurotic history. The attacks seem to be due to acid intoxication, and in five out of six patients acetone was found in the urine, only during attacks.

The third child was a girl of three years, with a family history of gout and tuberculosis. She was well until six months old, when an illness was induced by bad milk. There is a decidedly nervous temperament and attacks occur every two or three months. She is markedly constipated before attacks, and the temperature during them ranges from 102° to 107°. There is a marked heavy odor on the breath, somewhat resembling the odor of sardines. Thirst is marked. The attacks are generally similar to the others cited, and during them acetone and diacetic acid are found in the urine. In all of these patients large amounts of sodium bicarbonate given by enema relieved the severity of the attack and caused the acetone and excess of acid to cease to appear in the urine.

Dr. Philip K. Brown, in discussing the paper of Dr. Moffit, said that he had seen a number of patients suffering from these recurrent attacks. He thought intestinal disturbance with autointoxication was largely a causative factor, and doubted that the presence of acetone in the urine had much to do with it. Acetone is difficult to find in the urine, but diacetic acid is easy, and indicates the acidity of the urine. It should be a routine procedure to look after diacetic acid in these cases. Many of them vomit as often as every ten minutes and may keep it up for hours at a time. Bicarbonate of soda certainly relieves most of them, and large quantities of it may be given by the rectum, the buttocks being held forcibly together in order to secure its retention.

Dr. C. Quinan said that Leyden, in 1882, was the first to write of this form of vomiting. He outlined the literature on the subject and expressed the opinion that it is impossible to develop the pathology of the condition from the published text books or other literature on the subject. He thought some changes in the pancreatic digestion, or the proper secretions of the various elements of the digestive system might be largely at fault in the causation these attacks of vomiting. Acetone is an aldehyd of alcohol from glycerin, and is mostly a derivative of fats; if the fats are cut out of the diet much help might be gained. He doubted the action of sodium bicarbonate in neutralizing the acidity. The nervous element in the attacks he considered of the first importance, and thought that potassium bromid in the intervals and some of the coal tar depressants during the attacks would largely control these conditions.

Dr. W. W. Kerr mentioned the occurrence of this condition in a patient recently seen by him, the symptoms and general condition being practically the same as those described in the other cases reported. The child is old-mannish in his eating and general habits and there is no constipation nor gastric disturbance. The attacks seem to be always preceded by some nerve excitement. He saw the patient on the fifth day; the bowels had already been well cleared, there was no odor and only slightly acid urine; the urine was not examiued for acetone. The attacks commenced shortly after the boy commenced going to school and seemed to be started by the forced brain activity at that time. Forty grains of bromid, given by the rectum and retained by holding the buttocks together, followed by 20 grains every two hours, terminated the attack. Bromid has been administered ever since and there has been no attack since that time, four months having now elapsed. Acetone may have something to do with the attacks, but acidity of the urine is not found in every case. The cause was originally assigned to uric acid, but now that has been abandoned and we are as much at sea as to the causation as ever. The pathology is very unsatisfactory.

Dr. Howard Morrow recounted the history of this disturbance in a patient of his, and stated that cutting out the acid producing elements of the diet had a negative result. As the patient grows older the attacks become less frequent and will probably disappear.

Dr. Sherman asked whether the attacks seemed to tend to self-limitation; whether the patients got better as they grew older. The general opinion seemed to be that this was the case and that migraine often appeared later in life, after the attacks of vomiting had disappeared.

Dr. Brown said that the alkaline treatment certainly produced results that other treatments did not, and in support of the statement said that one patient of his who had frequent and severe attacks lasting as a rule about a week in spite of every treatment, had his last attack limited to three hours by the use of sodium bicarbonate, per rectum. He had tried the treatment recommended by Dr. Quinan and found it unsatisfactory. The cause might be as suggested by Dr. Quinan, but the treatment, in his opinion, was the employment of alkaline enemata.

Dr. George H. Evans said that these patients, as they grew older, developed migraine and ceased to have the vomiting attacks. This, in his opinion, was a clear indication of the nervous element in the causation of the trouble.

Dr. Sherman referred to a boy who had had what was called psychic vomiting and had been seen by a number of physicians. The attacks continued in spite of everything, and later a pain in the side was noted. Appendiceal trouble was diagnosed and about a year ago he was operated upon; since then he has been entirely well.

(Continued on page 418.)

DEPARTMENT OF MATERIA MEDICA, THERAPEUTICS AND PHARMACY.

SYNONYMS.

"Things which are equal to the same thing, are equal to each other."—*Axiom No. 1, p. 19 Davies' Legendre, Edition 1860.*

Few physicians know that many of the "new remedies" marketed under fanciful trade names are identical with remedies having dissimilar names, or are old preparations which have been given fancy names in order to create a false market for the thing in question. For the benefit of physicians and pharmacists the following table has been compiled and will be added to as the requisite information is obtained. The information is secured from chemists and from medical and pharmaceutical journals, and is correct in the main. Should any errors creep in they will be corrected as soon as detected. *Until sufficient evidence to the contrary is forthcoming, it must be assumed that there is no question of substitution involved when the pharmacist supplies a given article under any one of its synonymous names.*

Adeps lane hydrosus	Anasalpin Lanolin Lanum
Argentum Colloidale	Argentum Crede Collargol Colloidal silver
Beta-naphthol benzoate	Benzo-naphthol Benzoyl-beta-naphthol
Beta-naphthol Salicylate	Betol Naphtalol Naphthosalol Salinaptol
Bromacetanilid	Antisepsin Asepsin
Bismuth-iodo-subgallate	Airol Airogen Airoform
Calcium beta-naphthol sulphonate	Abrastol Asaprol
Dimethyl - ethyl - carbinol chloral	Dormiol Amylene-chloral
Dithymol Diiodid	Aristol Annidalin Di Thymol Iodid Di Iodo Dithymol (And several other similar names.)
Ethyl chlorid	Antidolorin Ethylol Kelene Mono-chlor-ethane
Hexamethylene-tetramine	Aminoform Ammonio-formaldehyde Cystogen Formin Saliformin Urotropin
", anhydromethylen citrate	Helmitol
Ortho - ethoxy - ana - mono - benzoyl-amido-chinolin	*Benzanalgene *Analgen *Quinalgen
Paraphenetin carbamid	Dulcin Sucrol
Phenyl-dimethyl-parazolon. (Germ. Pharm.)	Analgesin Anodynin Antipyrin Dimethyloxy-quinizin Methozan Phenazon (B. P.) Phenylon Pyrazin Pyrazolin Parodyn Salazolon Sedatin
Phenylacetamide	Acetanilid Antifebrin (And several hundreds of trade names for headache powders, etc.)
Phenylmethyl-ketone	Acetophenone Hypnone
Plant pepsin	Papain Papoid Papayotin Caroid
Salicylic acid ester of quinine	Salochinin Saloquinin
Salicylate of Salochinin	Rheumatin
Sodium sulpho-caffeate	Nasrol Symphoral
Thyroid gland, dried lactose trituration	Iodothyrine Thyroidin
Trioxymethylen	Paraformaldehyde Paraform Triformol

Acetyl-salicylic acid = Aspirin
Aluminum aceto-tartrate = Alsol
Australian oil Eucalyptus = Flucol
Bismuth chrysophanat = Dermol
Bismuth phosphate (soluble) = Bisol
Bismuth pyrogallate = Helcosol
Bismuth subgallate = Dermatol
Bismuth beta-naptholate = Orphal
Calcium permanganate = Acerdol
Calcium salicylate = Colchicin
Catarin hydrochlorid = Stypticin
Chloreton, 1% solution = Aneson
Creosote carbonat = Creosotal
Diethylen-diamin = Piperazin
Guaiacol carbonate = Duotal
Magnesium dioxid = Biogen
Oxyquinaseptol = Diaphtherin
Phenyl-ethyl urethan = Euphorin
Saccharin = Garanotose
Subgallate of bismuth = Dermatol
Sodium chlorate = Oxychlorine
Sodium beta-naptholate = Microcidin
Tang-Kui, Fl. extract = Eumenol
Trichloracetic acid, 50% solution = Acetocaustic

*Must be very cautiously used, if at all, for the physiologic action is not fully known, and this chemical is said to have very serious effect upon the heart and nervous system.

A Valuable Hypnotic.—Dr. Roberts Bartholow, in the *New York Medical Journal*, comments on a new hypnotic of rather unusually good recommendations. Chemically it is diethylmalonyurea and has been given the name (not controlled) of veronal. "In many of its properties it resembles trional and all the evidence shows that it effects its work without changing the character of the blood or causing any disturbance of the respiratory function." It may be used alone in doses of a half to one gramme, or, and this Dr. Bartholow recommends, in combination with one-third trional. He recommends that its administration be commenced with an initial dose of ten grains veronal to five of trional, continuing with smaller doses when the cumulative action is manifest. It certainly is refreshing to find an uncontrolled remedy that seems to have proper professional support and about which something may be said without fearing the accusation of having ulterior motives of a distinctly commercial character.

PROPOSED CHANGE OF CONSTITUTION.

The following is, in part, the report of the special committee appointed at the last annual meeting of the State Society to reconstruct the Constitution and By-Laws in conformity with the recommendation made by the American Medical Association.

CONSTITUTION.

ARTICLE I.

NAME AND OBJECTS.

SECTION 1. The name of this Society shall be the "Medical Society of the State of California."

SEC. 2. The purposes of this Society shall be to federate and bring into one compact organization the entire medical profession of the State of California, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE II.

COMPONENT SOCIETIES.

Component Societies shall consist of those county medical societies which hold charters from this Society.

ARTICLE III.

COMPOSITION OF THE SOCIETY.

SECTION 1. This Society shall consist of Members, Delegates and Guests.

SEC. 2. Members—The Members of the Society shall be the members of the component county medical societies.

SEC. 3. Delegates—Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective component societies in the House of Delegates of this Society.

SEC. 4. Guests—Any distinguished scientist, or any physician not a resident of this State, may become a guest during any Annual Session on invitation of the President or the officers of this Society, and shall be accorded the privilege of participating in all of the scientific work for that Session. The President shall announce to the general meeting the names of such persons as have been invited to attend the meeting, and their names shall then be enrolled as guests of that annual meeting.

SEC. 5. At the expiration of one year from the date of the adoption of this Constitution and By-Laws. those "members at large" and "permanent" members who have not become members of a component society shall be dropped from the roll of members of this Society. All members at large at the time of the adoption of this Constitution and By-Laws, shall pay to the Secretary within thirty days the sum of three dollars ($3.00), dues for the current year. At the expiration of thirty days the Secretary shall send by registered mail to each member of this class, whose dues remain unpaid, at his last known address, a second bill for the amount due, and if such accounts shall remain unpaid at the end of the second thirty days, such names shall be dropped from the roll of members. This section shall cease to be a part of the Constitution without further action at the expiration of one year from the date of its adoption.

ARTICLE IV.

HOUSE OF DELEGATES.

The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) Delegates elected by the component county societies, (2) the Councilors, and (3), *ex-officio*, the President and Secretary of this Society.

ARTICLE V.

MEETINGS.

SECTION 1. The regular meetings of this Society shall be held annually.

SEC. 2. Special meetings of the House of Delegates may be convened as the By-Laws provide.

SEC. 3. Twenty-five members shall constitute a quorum in the House of Delegates.

ARTICLE VI.

OFFICERS.

SECTION 1. The officers of this Society shall be a President. a First Vice-President, a Second Vice-President, a Secretary, two assistant Secretaries, a Treasurer, five members of the Board of Medical Examiners and three Alternates, and twelve Councilors, of whom one shall be elected from each of the nine councilor districts and three at large. Not more than three Councilors shall be elected from any one councilor district. These officers shall be elected by the House of Delegates at the time and in the manner duly provided in this Constitution and By-Laws.

SEC. 2. The officers, except the Councilors, shall be elected annually. The terms of the elected Councilors shall be for three years, those first elected serving one, two and three years, as may be arranged. All of these officers shall serve until their successors are elected and qualified.

SEC. 3. No Delegate shall be eligible to any office named in the preceding section, except that of Councilor, and no person shall be elected to any such office who is not in attendance upon that Annual Session and who has not been a member of the Society for the past two years.

ARTICLE VII.

COUNCIL.

The Council shall consist of the Councilors, and the President and Secretary, *ex-officio*. Besides its duties mentioned in the By-Laws, it shall constitute the Finance Committee of the House of Delegates. Five Councilors shall constitute a quorum.

ARTICLE VIII.

SECTION AND DISTRICT SOCIETIES.

The House of Delegates may provide for a division of the scientific work of the Society into appropriate Sections, and for the organization of such District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE IX.

RECIPROCITY OF MEMBERSHIP WITH OTHER STATE SOCIETIES.

In order to broaden professional fellowship this Society is ready to arrange with other State Medical Associations for an interchange of certificates of membership, so that members moving from one state to another may avoid the formality of re-election.

ARTICLE X.

FUNDS AND EXPENSES.

Funds shall be raised by an equal per capita assess-

ment on each component society. The amount of the assessment shall be fixed by the House of Delegates, but shall not exceed the sum of $2.00 per capita per annum, except on a four-fifths vote of the Delegates. Funds may also be raised by voluntary contributions from the Society's publications, and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Society, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be referred to the Finance Committee before action is taken thereon.

ARTICLE XI.

REFERENDUM.

SECTION 1. A general meeting of the Society may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Society, who may vote by mail or in person, and, if the members voting shall comprise a majority of all the members of the Society, a majority of such vote shall determine the question and be binding on the House of Delegates.

SEC. 2. The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the precediug section, and the result shall be binding on the House of Delegates.

ARTICLE XII.

THE SEAL.

The Society shall have a common seal, with power to break, change or renew the same at pleasure.

ARTICLE XIII.

AMENDMENTS.

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates present at any annual session, provided that such amendment shall have been presented in open meeting at the previous annual session, and that it shall have been published twice during the year in the Journal of this Society, or sent officially to each component society at least two months before the meeting at which final action is to be taken.

BY-LAWS.

ARTICLE I.

MEMBERSHIP.

SECTION 1. All members of affiliated County Medical Societies shall, by virtue of such membership, be members of this Society, when duly reported by the President and Secretary of the County Medical Society. The name of a physician on the properly certified roster of members of a component society, which has paid its annual assessment, shall be *prima facie* evidence of membership in this Society.

SEC. 2. Any person who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Society, nor shall he be permitted to take part in any of its proceedings, nor receive its publications, until he has been relieved of such disability. Any person who may be suspended for nonpayment of dues is to be construed as coming within the provisions of this section.

SEC. 3. It shall be the duty of the President and Secretary of each component society to furnish the Secretary of this Society with a correct list of its members, with addresses, at least one month prior to each annual meeting.

SEC. 4. Any physician residing in a county in which there is no county medical society in affiliation with this Society, may make application for membership to the county society of the county nearest to that in which he resides, or to that adjoining county society which he could most conveniently attend.

SEC. 5. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified, by reference to the roster of his society, he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

SEC. 6. Honorary members are such distinguished persons as this Society may deem worthy of the compliment, and, after nomination in writing by three members, they may be elected to membership by the House of Delegates at any regular meeting. Their privileges shall be to take part in the scientific sessions and to receive programs and publications.

(To be continued next month.)

MEDICAL SOCIETY MEETINGS, (Continued.)

(From page 415.)

Dr. Moffit, in closing the discussion, said that all the conditions noted, temperature, vomiting, acetone and diacetic acid in the urine, etc., were undoubtedly not causes but results. The affection is one of a group of little understood neuroses and undoubtedly its principal cause was nerve disturbance of some sort. He thought the element of abdominal pain or of migraine might alternate with vomiting, and that probably many cases of appendicitis were really disturbauces of this sort.

Dr. Kerr exhibited the pathological specimens taken at post mortem from the patient with Hodgkin's disease exhibited at the Academy in September and published in the report. (See JOURNAL, page 339.) Enormously enlarged glands were found associated with all the organs, the retroperitoneal glands seemingly more massive than others.

Toy Pistol Resolutions.—At the 29th Annual Session of the Mississippi Valley Medical Association, held at Memphis, October 7-9, the following resolutions were adopted:

"In view of the fact that more than 400 deaths from tetanus occurred following the 4th of July celebration of 1903, the great majority of which might have been prevented had proper precautions been taken; therefore,

"*Be it Resolved*, That the conclusions which follow, as offered by Dr. Stanton in a paper presented before the Association at the above meeting, be endorsed as the sense of the Association; and further

"*Be it Resolved*, That the Secretary be instructed to forward a copy of these resolutions and conclusions to the Medical Press, Associated Press, and the Secretaries of the several State Medical Societies with the request that they publish the same and take suitable action thereon.

"1. Enforcement of existing laws regarding the sale of toy pistols and other dangerous toys. 2. Enactment of laws by the nation, states and municipalities prohibiting the manufacture and sale of toy pistols, blank cartridges, dynamite canes and caps, cannon crackers, etc.. 3. Open treatment of all wounds, however insignificant, in which from the nature or environment there is any risk of tetanus. 4. Immediate use of tetanus antitoxin in all cases of Fourth-of July wounds, or wounds received in barnyards, gardens, or other places where tetanus infection is likely to occur. 5. As a forlorn hope, the injection of tetanus antitoxin after tetanus symptoms have appeared."

An International Sanitary Congress for the Adoption of Means of Defense against Cholera and the Plague opened at Paris on October 10. Representatives of twenty-five powers were present.

CALIFORNIA STATE JOURNAL OF MEDICINE.

INDEX TO VOLUME I.

TITLES AND AUTHORS.

A

Achlorhydria, Six Cases of, A. V. Miller..... 394
Advertising Methods, Improper, Dudley Tait... 366
Alameda Co. Med. Soc. Meetings..... 410
Alcohol, Manifesto on Use of, T. D. Crothers.... 156
Aleuts, The, W. F. B..... 6
Anti-Tuberculosis League (*Los Angeles Herald*). 58
Appendicitis, Unusual Infection Causing Acute Suppurative, Harry M. Sherman..... 254
Appendicitis, Report of Operations, W. W. Beckett 271
Asafetida, Plaster of Paris in, C. S. N. Hallberg.. 387

B

Bone Transplanting, Report of Case, A. W. Morton 213
Bubonic Plague in San Francisco (From *American Medicine*)..... 20
Bubonic Plague, Report of Case of, E. L. Wemple 40
Bubonic Plague (*Northwest Medicine*)..... 99

C

California Academy of Medicine meetings..... .....11, 42, 94, 98, 102, 135, 243, 339, 414
California Northern District Med. Soc., November meeting; officers 57
Cal. State Jour. Med. (*Medico-Legal Jour.*).. 39
Certified Mineral Waters (*American Medicine*).. 39
Cleft Palate Cases, Points in Management of, Harry M. Sherman 44
Climate of Santa Barbara, C. M. Richter..... 298
Committees and Officers, State Society, 1902-3... 24
Constitution and By-Laws, State Society..... 28
Proposed Change of 417
County Society Reports, D. A. Hodghead, W. F. Southard, communication 321
Criticism State Society, J. M. Hurley, Editorial comment 69
Cross Eyes, Cure of, Vard H. Hulen 267

D

Deformities, Correction of, James T. Watkins.. 293
Diploma vs. Certificate, William C. Tait, Esq..... 264
Diphtheria, a Few Illustrative Cases of, F. G. Burrows 329
Diseases of Infancy Due to Faulty Nutrition, William N. Sullivan 234
Drainage, Abdominal, Stanley Stillman 334

Deaths.

John Byrne, Gregory J. Phelan..... 13
Luc H. J. Masson, Lorenzo T. Gorsuch..... 31
W. T. Garwood, James F. McCone..... 43
Joseph R. Laine, R. H. Clement, E. W. Bradley, Robert E. Williams 70
H. H. Warburton..... 125
James R. Todd, Addison C. Hinkson, F. R. Waggoner 174
Clinton H. Lubbock 194
Julius A. Crane 223
Charles Brooks Brigham 311
O. H. Simons, Warren H. Blood..... 323
J. G. Neal, George W. Carpenter, L. C. Winsor.. 385
Alphonse J. Mervy, Michael Heinimann..... 409

E

Edema, Infectious Pulmonary, W. Ophüls..... 404
Editorials—
November, 1902—Purpose of the State Journal, Membership in State Society, Importance of Affiliation, Character of Advertising, Lorenz visits San Francisco, Protection in Organization, Urgent Need of Research Work, San Francisco and the Plague..... 1-4
December, 1902—Pharmaceutical Standardization, Organization Progressing, Obvious Duty Before Wedlock, Affiliation of County Societies, Scientist to be at Helm, Commercial *vs.* Professional, Organization in Counties, Lorenz's Visit 33-36
January, 1903—Covert Attack on Medical Law, Word "Patent" a Misnomer, State Society April Meeting, Protection for Practitioners, Membership in A. M. A. Defined, Pure Food Bill in Congress, Prof. Lorenz and his Claim, Inexcusable Delinquency, The Journal Advertisers..... 63-67
February, 1903—Health Board Vindicated, Usefulness of County Society, Question of Pure Food, Eddyite Book Concern, Inspection of Milk, New York's Phenacetin, Limits in Advertising, Eddyite Modesty, Index Medicus 95-98
March, 1903—Santa Barbara Meeting, Public be Protected, Register Physicians, Analyses Pure Drugs, Recent History and Journal, Lack of Standard, Strength of Organization, Reports from Counties, Personalities *vs.* Organization National Bureau and A. M. A., Obituary, Proprietary Preparations, Program, Medical Legislation.....127-131
April-May, 1903—Notice Advertisers, Resolutions State Society, End of Volume, Represent Entire State, How to Avoid Irregularity, Should Join Co. Body, Ignorance and Progress, Santa Barbara Addresses, New Clinical Coast Material, Restrictive Legislation.....157-158
June, 1903—"Scientific" Editorials, Board of Examiners, Milk Supply Supervision, University Epidemics, Committee on Tuberculosis, Power of Organization, Reorganization of Profession, Code of Ethics Innocuous, Reports from County Bodies, Trouble for Delinquents, State Society Annual Meeting, State Society's Scientific Work, Advise Removal of Chinatown, Report A. M. A. Committee Medical Education, City and County Hospital and Trades Unions, Register of Physicians, Reciprocity..... 189-194
July, 1903—Organization Growing Apace, Official Register of Physicians, Progeny Insurance, Contract Doctors, Why Place was Selected, Physicians' Mutual Aid Association, The Journal is Yours, Journal and Medical News, Food or Poison, Medical Ethics, Committee on Tuberculosis, To Abolish Sub-street Manufactories..... ..219-222
August, 1903—Attack on Medical Law, Additions to Materia Medica, Physicians—Are They Idiots? Cocaine Habit, Pharmacy and Medicine, Therapeutic Value of X-Rays, Directory of Physicians, Red Cross Muddle, Physicians' Card File, Check to Legalized Blackmail, County Hospital Needs.....249-253
September, 1903—Scientific Editorials, Initial Publications, Relief in Sight, Careless Pharmacist, Medical Societies and Public Press, Work for Every Member, Ignorance of Medicine, Secretaries Should Assist New Department, Froude-Carlyle, Curious Manufacturer, Santa Clara Resolutions, Tuberculosis Committee, Final Judges of Success.....279-283
October, 1903—Surgical English, Reading Notices, Another Spasm, Initial Publication, To the Secretaries Co. Societies, Missing Numbers, Typhoid Prophylaxis, Higher Standards, Physicians' Directory, County Society Transactions, Meeting of Health Officers, Delinquent Members and The Journal, City and County Hospital, This is Your Journal.....315-319
November, 1903—Oregon State Society, Illegal Practitioners, Offensive Advertising, Committees on Admission, Organization and the Quack, How Members May Assist, Profession in New York, Questionable Endorsements, Truth, City and County Hospital.....347-321
December, 1903—Notice Register, Suits Against Examiners, Rats, Bounty on Rats, Table of Synonyms, Dr. Gould Criticized, Toy Pistol, Title of Honor, Eddyite Thirst, School Children's Eyes, New Constitution..... 387-418
Ethical Advertising (*Penn. Med. Jour.*)..... 99
Ethics, Principles of, A. M. A..... 270
Eyes of School Children, George L. Leslie..... 406

F

Fowls, Tuberculosis in, Archibald R. Ward..... 398
Fractures Lower Extremities, Ununited, Le Moyne Wills 255
Fresno County Society Meetings..... 94, 339,379

G

Gastric Surgery, A Few Remarks on, Dudley Tait 209
Gastro-Duodenal Ulcer, Report of Case of, William Fitch Cheney 8
Genito-Urinary Surgery, Spinal Anesthesia in, M. Krotoszyner 118
Glands, Ductless, W. E. Upton..... 400
Goods Subject to Test, H. H. Rusby 387
Gynecological Surgery, Conservatism in, W. F. B. Wakefield 148

H

Hawaiian Territorial Med. Soc. List of Members 58
Headache as a Symptom, H. Bert Ellis..... 303
Health of Allied Forces in China (*Yokohama Herald*) 58
Health of University Girls, A Study of, Mary B. Ritter 259
Hip, Operation for Congenital Luxation of, Emmet Rixford 134
Homeopathic Examinations 390
Humboldt Co. Med. Soc. meetings..... ..... 211, 242, 306, 340, 379
Hydrocele, Treatment of by Eversion of Tunica Vaginalis, Dudley Tait 145
Hydrotherapy, Geo. A. Hare..... 104
Hydrotherapy in Typhoid, Frank L. Adams..... 109
Hydrotherapy in Pneumonia, A. J. Sanderson... 115
Hygiene, Report on, H. J. Crompton..... 124

I

Imperfect Operation, Correction of, Geo. B. Somers 161
Infection, Unusual, Harry M. Sherman..... 254
Discussion on, Dudley Tait.....204, 320
Discussion on, Mary Halton.....305, 366
Initial Publication, Communication, A. S. Lobingier 320
Insane, State Hospital Care and Treatment of, Alden M. Gardner 77
Iodid of Potash Eruptions, D. W. Montgomery.. 160

K

Kidney, Decapsulation of, George Goodfellow.... 391

L

Lacerations, Prevention of Perineal, Edw. N. Ewer 401
Lorenz, Some Notes on Visit of to San Francisco, Philip Mills Jones..... 5
Los Angeles Co. Society meetings..... 94, 212, 379
Lupus Erythematosus, Alfred B. Grosse..... 322

M

Materia Medica Products, Necessity of Standardizing, F. E. Stewart..... 37
Materia Medica, Therapeutics and Pharmacy, Department of 312, 345, 387, 416
Medical Education and Work of Board of Examiners, Report of, W. S. Thorne..... 199
Medical Examiners, State Board of (July-August Examinations) 310
Medical Law, Practical Value of the State, W. W. Cross 363
Discussion 365
Medical Legislation in California, W. C. Tait, Esq. 72
Medical Legislation and Education, Report on, Henry Gibbons, Jr..... 197
Medical Society of the State of California—
1902 meeting, proceedings 25
1903 meeting, proceedings 162
1903 meeting, proceedings 195
1903 meeting, proceedings 225
Medical Society of the State of California, list of Officers and Standing Committees, 1902.. 62
List of members 215
Memorial Committee, Report of (1903)..... 171
Memorial Committee, Report of (1902)..... 227
Mendocino Co. Med. Soc. meetings..... 389
Merced Co. Med. Soc. Meetings..... 410
Milk, Home Modification of, E. W. Twitchell.... 236
Milk Supply, Necessity of a Pure, George H. Evans 230
Monthly Journal vs. Yearly Transactions, Emil Mayer 159
Muscles and Tendons, Suturing of, D. D. Crowley 48

N

Napa County Med. Soc. meetings..... 274, 340
National Bureau of Medicines and Foods, Philip Mills Jones, Chairman Com. on Organization 132
General Statement of Plan..... 224
Answer to Attack by *Western Druggist*..... 319
Nor. Cal. and So. Oregon Med. assn..... 381

O

Obesity, Nature and Treatment of, A. W. Perry. 356
Officers and Committees State Society, 1902-3.. 24
Oophorectomy, Effect on Mind and Nervous System, Walter Lindley 84
Orange County Med. Soc. meetings, 242, 340, 381, 411
Oregon State Medical Society meeting, reported by Philip Mills Jones..... 368
Osteopath Bill, Veto. Gov. Wells, Utah..... 159
Otitis Media, Mastoid Operation in Chronic Suppurative, H. Bert Ellis..... 14

P

Pancreatic Cyst, Report of a Case of, William Fitch Cheney 136
Pancreatic Cyst, Case of, Elmer E. Kelly..... 144
Pancreatic Disease, Chemical Pathology of, Philip King Brown 141
Pancreatitis, Chronic Interlobular, L. W. Allen. 133
Pathological Congress, Berlin 31
Peritoneum and Adnexa, Tuberculous Infection of, Andrew S. Lobingier..... 351
Personals 275, 311, 321, 383, 409
Pharmaceutical Association, American, 51st Annual Meeting of 312
Physiological Laboratory, U. of C..... 31
Pott's Disease, Emma Sutro Merritt..... 92
Pott's Disease of Spine in Children, James H. Tebbetts 152
Post-Occipital Lymphadenitis, Henry May Pond, (editorial comment)..... 68
Progressive Muscular Atrophy Spinal Origin, Case of, Henry Harris..... 70
Prostatic Obstructions and their Removal, Oration on Surgery, Granville MacGowan..... 202
(Continued) 238
Ptomaine Poisoning, E. O. Jellinek..... 121
Public Phthisiophobia, Is Another Chapter to be Written? F. M. Pottenger..... 81
Publications. 100, 223, 276, 314, 344, 384, 408
Puerperal Eclampsia, H. M. Pond..... 184

Q

Quarantine Station, The San Francisco, Hugh S. Cumming 324

R

Rat, The Common, Donald H. Currie..... 359
Reed, Dr. Walter, Memorial Services, Washington, D. C., Philip Mills Jones..... 69
Refractive Errors, Correction of, W. S. Fowler.. 354
Reprints, Unauthorized Use of..... 386
Riverside Med. Soc..... 411

S

Sacramento Soc. for Med. Improvement, meetings..... 125, 212, 275, 307, 343
San Bernardino Co. Med. Soc. meetings.....341, 411

San Diego County Med. Soc. meetings.....
.....274, 306, 381, 412
San Francisco County Society meetings.....
18, 56, 49, 101, 133, 212, 243, 274, 307, 341, 381, 411
San Francisco Vital Statistics.....23, 59
S. F. Eye, Ear, Nose, Throat Surgeons, meetings..... 125, 212, 275, 307, 343
Sanitary Conference of California..... 343
San Joaquin Valley Med. Soc. meeting, P. M. J.. 376
San Luis Obispo Co. Med. Soc. meetings..... 274
Santa Barbara Med. Soc..... 413
Santa Clara Co. Med. Soc. meetings.....
.....243, 274, 308, 342, 413
Scamp and Criminal, Correspondence, W. W. Cross 276
Sclerosis of Middle Ear, Treatment of, M. W. Frederick 154
Septicemia, Puerperal, R. A. Whiffin..... 395
Shasta Co. Med. Soc. meetings..... 382
Sonoma Co. Med. Soc. meetings.....383, 413
Southern California Med. Soc. meeting, Dec. 1902 57
State Journal Files, Communication, H. S. Gordon, secretary 321
State Society meeting, 1902, Proceedings of.. 25, 60
State Veterinary Ass'n meeting..... 244

T

Thirty-third Annual Meeting State Soc. program, March, '03, ad page..... 7
Circular Com. Arrange., Mch, '03, ad page.. 8
Transmissible Diseases, Los Angeles Health Officer on, Sumner J. Quint..... 19
Tri-County Society meetings 18
Tropical Diseases in California (Address in Medicine), Wm. Watt Kerr..... 174
Tuberculosis, How Far Shall State Restrict Action of, Norman Bridge..... 179
Tuberculosis, Pulmonary, Rational Treatment of, F. M. Pottenger..... 284
Tuberculosis, Prevention of, Edward von Adelung 290

U

Uteri, Intra-abdominal Shortening Round Ligaments for Retro-displaced, J. Henry Barbat. 182

V

Venereal Disease, Prophylaxis of, John C. Spencer 87
Ventura Co. Med. Soc. Meetings..... 414

Y

Yolo Co. Med. Soc. meetings..... 343

AUTHORS AND TITLES.

A

Adams, Frank L., Hydrotherapy in Typhoid... 109
Allen, L. W., Chronic Interlobular Pancreatitis.. 138

B

Barbat, J. Henry, Inter-abdominal Shortening Round Ligaments 182
Discussion Diphtheria 333
Bazet, L., Discussion Decapsulation Kidney..... 394
Beckett, W. W., Appendicitis; Report of 71 Operations 271
Brainerd, H. G., Discussion of Dr. Gardner's Paper on Insane 80
Bridge, Norman, How Far Shall State Restrict Individual Action Sick, Especially Tuberculous 179
Brown, H. L., Discussion Tuberculous Infection 354
Brown, Philip King, Chemical Pathology of Pancreatic Disease 141
Burrows, Fred Grant, A Few Illustrative Cases Diphtheria 329
Discussion 334

C

Cheney, William Fitch, Fatal Case of Gastro-Duodenal Ulcer 8
Report of Case Pancreatic Cyst..... 136
Chismore, George, Discussion of Dr. Spencer's Paper on Venereal Disease..... 91
Cole, George L., Discussion of Dr. Lindley's Paper on Oophorectomy 86
Discussion Hydrotherapy Symposium..... 118
Discussion Diphtheria 333
Cooper, C. M., Discussion Abdominal Drainage.. 338
Cowan, A. B., Discussion State Medical Law.... 365
Crompton, H. J., Report on Hygiene..... 338
Cross, W. W., Communication, Scamp and Criminal 276
Practical Value State Medical Law..... 363
Crowley, D. D., Suturing of Muscles and Tendons 48
Discussion Decapsulation Kidney..... 394
Cumming, Hugh S., San Francisco Quarantine Station 324
Currie, Donald H., The Common Rat..... 359

D

Davis, George William, Report Memorial Committee (1903) 171

E

Eaton, G. L., History of Patient operated upon for Bright's Disease..... 393
Ellis, H. Bert, Mastoid Operation Suppurative Otitis Media 14
Headache as a Symptom 302
Evans, George H., Necessity of Pure Milk Supply for Infant Feeding 230
Discussion Diphtheria 333
Ewer, Edward N., Prevention of Perineal Lacerations 401

F

Fowler, W. S., Correction of Refractive Errors. 351
Frederick, M. W., Treatment of Sclerosis Middle Ear 154
Frisbee, E. G. Discussion of Dr. Crowley's Paper on Suturing 55

G

Gardner, Alden F., State Hospital Care Insane.. 77
Gibbons, Henry, Jr., Report on Medical Legislation and Education 197
Goodfellow, G., Decapsulation of Kidney..... 391
Gordon, H. S., State Journal Files (communication) 321
Grove, Alfred B., Lupus Erythematosus..... 322

H

Hallberg, C. S. N., Plaster of Paris in Asafetida. 387
Halton, Mary, Discussion on Dr. Sherman's Paper on Unusual Infection..... 305, 366
Hare, George A., Hydrotherapy..... 104
Discussion Hydrotherapy Symposium..... 118
State Medical Law 365
Harris, Henry, Case of Progressive Muscular Atrophy 70
Hodghead, D. A., Discussion Perineal Lacerations.. 404
Hulen, Vard H., Cure of Cross Eyes..... 267
Hunkin, S. J., Discussion Dr. Crowley's Paper on Suturing 55
Huntington, Thomas W., Discussion Suturing.. 55
Review Opie's "Disease of Pancreas"..... 276
Discussion Abdominal Suturing 337
Hurley, J. M., Criticism State Society..... 68

J

Jellinek, E. O., Ptomaine Poisoning..... 121
Jones, Philip Mills, notes Lorenz Visit S. F..... 5
Memorial Services, Dr. Walter Reed..... 69
Nat. Bureau Medicines and Foods..... 132
Report Proceedings Santa Barbara meeting State Society 162
Report meeting Amer. Phar. Assn..... 312
Answer Attack Nat. Bureau..... 319
Discussion State Medical Law..... 365
Report Meeting Oregon State Med. Soc..... 365
Report Meeting San Joaquin Valley Med. Soc. 376

K

Kelly, Elmer E., Care of Pancreatic Cyst..... 144
Report as Treasurer State Society..... 187
Discussion Abdominal Drainage 337
Discussion of Dr. Lindley's Paper on Oophorectomy 86
Kerr, Wm. Watt, Tropical Diseases in California 174
King, E. W., Discussion Dr. Gardner's Paper on Insane 80
Krotoszyner, M., Discussion of Dr. Spencer's Paper on Venereal Disease..... 91
Spinal Anesthesia Genito-Urinary Surgery.. 118

L

Lindley, Walter, Effects Oophorectomy..... 84
Leslie, George L., The Eyes of School Children.. 406
Lobingier, A. S., Communication..... 320
Discussion Abdominal Drainage 337
Tuberculous Infection of Peritoneum and Adnexa 351
Discussion 354
Lockwood, C. D., Discussion Tuberculous Infection 354

M

MacGowan, Granville, Prostatic Obstructions and Their Removal 202, 238
Discussion Decapsulation Kidney..... 394
Maher, J., Discussion Diphtheria 334
Discussion Perineal Lacerations..... 404
Malaby, Z., Discussion Perineal Lacerations..... 404
Mayer, Emil, Monthly Journal vs. Yearly Transactions 159
Merritt, Emma Sutro, Pott's Disease..... 92
Miller, Austin V., Report Six Cases Achlorhydria. 394
Montgomery, D. W., Discussion of Dr. Spencer's Paper on Venereal Disease..... 91
Iodid of Potash Eruptions..... 160
Morton, A. W., Bone Transplanting, Report of Case 213

O

Ophüls, Wm., Autopsy Report Ptomaine Poisoning 122
Infectious Pulmonary Edema..... 404

P

Parker, A. S., Discussion Perineal Lacerations... 404
Perry, A. W., Nature and Treatment of Obesity 365
Pischel, K., Discussion of Dr. Crowley's Paper on Suturing 55
Discussion Decapsulation Kidney..... 394
Pond, Henry May, Post-Occipital Lymphadenitis 68
Puerperal Eclampsia 184
Porter, W. S., Discussion Abdominal Drainage.. 338
Pottenger, F. M., Public Phthisiophobia 81
Rational Treatment of Pulmonary Tuberculosis 284

Q

Quint, Sumner J., Transmissible Diseases..... 19

R

Richter, C. M., Climate of Santa Barbara..... 298
Ritter, Mary B., Study of Health University Girls 259
Rixford, Emmet, Final Result Lorenz Operation Congenital Luxation Hip 134
Discussion Abdominal Drainage..... 337
Rooney, R. F., Report Committee Necrology (1902) 227
Rosenstirn, J., Discussion Abdominal Drainage.. 338
Discussion Decapsulation Kidney..... 394
Discussion Tuberculous Infection 354
Rowell, Chester A., State Medical Law..... 365
Rucker, H. N., Discussion of Dr. Gardner's Paper on Insane 80
Discussion Hydrotherapy Symposium 118
Rusby, H. H., Goods Subject to Test..... 387

S

Sanderson, A. J., Hydrotherapy in Pneumonia.. 115
Sherman, Harry M., Management Cleft Palate Cases 44
Discussion of Dr. Crowley's Paper on Suturing 55
Unusual Infection Causing Suppurative Appendicitis 254
Sherman, W. N., Discussion State Medical Law. 365
Discussion Perineal Lacerations..... 404
Shiels, George F., Discussion of Dr. Crowley's Paper on Suturing 55
Somers, George G., Correction of Imperfect Operation 161
Spencer, John C., Prophylaxis Venereal Disease 87
Stewart, F. E. Standardizing Materia Medica Products 37
Stillman, Stanley, Abdominal Drainage..... 334
Discussion 338
Sullivan, Wm. N.. Diseases of Infancy Due to Faulty Nutrition 234

T

Tait, Dudley, Treatment of Hydrocele..... 145
Remarks on Gastric Surgery..... 209
Discussion on Dr. Sherman's Paper on Unusual Infection 254, 320
Discussion Decapsulation Kidney..... 394
Improper Advertising Methods 366
Tait, Wm. C., Medical Legislation in California 72
Diploma vs. Certificate 264
Tebbetts, James H., Pott's Disease of Spine in Children 152
Thorne, W. S., Report of Medical Education and Work Board Examiners 199
Topping, F. P., Discussion Perineal Lacerations.. 404
Twitchell, E. W., Home Modification of Milk.... 236

U

Upton, W. E., The Ductless Glands..... 400

V

Von Adelung, Edward, Prevention of Tuberculosis 290
Von Hoffman, C., Discussion of Dr. Lindley's Paper on Oophorectomy 86

W

Wakefield, W. F. B., Conservatism in Gynecological Surgery 148
Ward, Archibald R., Tuberculosis in Fowls..... 398
Watkins, James T., Corrections of Deformities.. 293
Wells, Gov. H. M., Veto Message Osteopath Bill 159
Wemple, E. L., Report Case Bubonic Plague.... 40
Whiffin, R. A., Puerperal Septicemia..... 395
Wills, LeMoyne, Ununited Fractures Lower Extremity 255
Witherbee, O. O., Discussion Abdominal Drainage 338

4 IC 1351